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DEVELOPING A HEALTH INFORMATION PLAN

FOR

BAYNE-JONES ARMY COMMUNITY HOSPITAL

A Graduate Management Project

Submitted To The Faculty Of Baylor University

In Partial Fulfillment Of The Requirements

For The Degree Of

Master Of Health Administration

By

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Fort Polk, Louisiana

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Abstract

DEVELOPING A HEALTH INFORMATION PLAN FOR
BAYNE-JONES ARMY COMMUNITY HOSPITAL

by CPT Mark A. Eckman

Graduate Management Project Reader: Professor Lee W. Briggs, LTC

In 1995, Bayne-Jones Army community Hospital, Fort Polk, Louisiana, underwent tremendous changes in its information systems, most of which were dictated by external agencies. Through the years, similar deployments of different systems created a piecemeal information system that is not integrated, is laborious to maintain and difficult to keep personnel trained on. Support personnel for the hospital's computers are overwhelmed by the continuous requirement to implement new systems resulting in a loss of control over the whole information system. This project achieved three objectives: 1) it developed a format for a Health Information Plan based on JCAHO standards, a review of the literature and the needs of the staff, 2) it created a process to assess the information needs of the staff and 3) it created a document to be used by the hospital's Information Management Team as the Health Information Plan. The development of a needs assessment process includes an individual use survey as well as a department level survey that charts the flow of information. The resulting Health Information Plan, is the consolidation of all relevant data and information into one document for the purpose of making timely, intelligent decisions about the hospital's information systems. The development of the Health Information Plan is a critical step in regaining control of the hospital's information systems.

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LIST OF ABBREVIATIONS

<u>AMO</u>	<u>Automation Management Office (Automation Support Branch)</u>
<u>BJACH</u>	<u>Bayne-Jones Army Community Hospital</u>
<u>CHCS</u>	<u>Composite Health Care System</u>
<u>CSD</u>	<u>Clinical Support Division</u>
<u>CTMC</u>	<u>Consolidated Troom Medical Clinic</u>
<u>DEM</u>	<u>Department of Emergency Medicine</u>
<u>DOM</u>	<u>Department of Medicine</u>
<u>DOS</u>	<u>Department of Surgery</u>
<u>DOS</u>	<u>Disk Operating System</u>
<u>DSS</u>	<u>Decision Support System</u>
<u>ESS</u>	<u>Executive Support System</u>
<u>FMED</u>	<u>Facilities Management and Engineering Department</u>
<u>HIS</u>	<u>Health Information System</u>
<u>HQ</u>	<u>Headquarters</u>
<u>HSSA</u>	<u>Health Service Support Area</u>
<u>IS</u>	<u>Information system</u>
<u>JCAHO</u>	<u>Joint Commission on Accreditation of Hospital Organizations</u>
<u>JRTC</u>	<u>Joint Readiness Training Center</u>
<u>KWS</u>	<u>Knowledge Work System</u>
<u>LAN</u>	<u>Local Area Network</u>
<u>LAN</u>	<u>Local Area Network</u>
<u>LOG</u>	<u>Logistics Division</u>
<u>MEDCOM</u>	<u>Medical Command</u>
<u>MIS</u>	<u>Management Information System</u>
<u>NCD</u>	<u>Nutrition Care Division</u>
<u>OAS</u>	<u>Office Automation System</u>
<u>PAD</u>	<u>Patient Administration Division</u>
<u>PC</u>	<u>Personal Computer</u>

<u>Prev Med</u>	<u>Preventive Medicine Division</u>
<u>Psych</u>	<u>Department of Psychology</u>
<u>PTMS</u>	<u>Plans, Training, Mobilization, and Security</u>
<u>RMD</u>	<u>Resources Management Division</u>
<u>SWS</u>	<u>Social Work Services</u>
<u>TPS</u>	<u>Transaction Processing System</u>
<u>VT</u>	<u>Video Terminal</u>
<u>VTC</u>	<u>Video Teleconference</u>

Chapter 1

INTRODUCTION

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requires that hospitals effectively manage information as a resource. To maintain this standard, hospitals must “..obtain, manage, and use information to improve patient outcomes and individual and hospital performance in patient care, governance, management, and support services (JCAHO, 1996).” JCAHO’s 1996 Comprehensive Accreditation Manual for Hospitals contains 49 scored standards in the Management of Information Section that are used to evaluate the information management function. The very first of those standards, IM.1, is that “the hospital plans and designs information-management processes to meet internal and external information needs.” JCAHO explicitly cites “A written plan for information management that is either independent or part of the overall hospital plans,” as a way to meet the standard.

The term “health information plan” was coined to describe a document that details the generation of data, the interpretation of data into information, the consolidation of information into reports and documents, and the dissemination of reports and their use. It is a process that describes the management of data and information processes in a hospital and provides a way to continuously improve them (Minzey, 1995). In this study, a health information plan is the consolidation of all the data and information needed to make intelligent decisions about how information is managed to improve patient care.

Christiane Jones, a member of the JCAHO Task Force that developed the information management section of the JCAHO standards, states that hospital staff who manage information, medical records, data processing, management information systems

(MIS) and library services are the ENABLERS of information for hospitals...and the information management plan (hereafter referred to as a health information plan) is the hospital's strategy for making access to and use of information products easier for customers (Minzey, 1995)."

The purpose of this Graduate Management Project is to develop a health information plan for Bayne-Jones Army Community Hospital. The plan is based on the JCAHO information management standards as well as a review of the most current professional literature on the subject "health information systems" and related topics. The health information plan also tries to meet the specific needs of the hospital staff and its customers. This study attempts to fulfill three objectives to meet its purpose. First it develops a logical and useful format for the health information plan. The question answered is "what data and information should be included in the plan to make it useful to decision makers?" The second goal is developing a planning process that can be used by the information management team to make effective strategic decisions about the hospital's information systems. The final goal, is assembling the data and information gathered into a document to provide the Information Management Team a place to start.

Conditions which prompted the study

Bayne-Jones Army Community Hospital is a 169 bed, acute-care hospital that supports the Joint Readiness Training Center (JRTC) and surrounding areas at Fort Polk, Louisiana. It provides outpatient services and tertiary medical support for approximately 10,000 active duty soldiers, 13,000 family members and approximately 34,000 retirees and their families. Bayne-Jones Army Community Hospital has a small support staff, called the Automation Support Branch, that oversees the maintenance and deployment of the hospital's computers. In the beginning of 1995, the Automation Support Branch managed 21 independent computer systems, all running on personal computers. The hospital's personal computer inventory consisted of a small percentage of Intel® 486 platforms, numerous 386 machines, and over two hundred 286 version

personal computers. By 1995 industry standards, the 286 personal computer was a too old to operate current software applications. The software applications in use were outdated DOS based programs like WordPerfect® version 5.1, Lotus 123®, version 2.1 and ProComm® for DOS. In 1995, a wave of information technology and advancements hit the hospital like a tidal wave.

In January 1995, Bayne-Jones Army Community Hospital installed the PC-based Composite Health Care System (CHCS). CHCS is a health care database system that provides numerous integrated clinical and administrative functions to users. CHCS consists of a network of dumb terminals linked to 13 Pentium® computers that acts as a repository for numerous data bases. CHCS gives physicians the capability to order prescriptions, radiology tests and laboratory tests through one of the CHCS terminals. It also provides them with the ability to retrieve the results from those tests via the computer. CHCS automates and consolidates a whole host of functions within both the clinical and administrative arenas. Implementing the system, training staff members to use it, and keeping it running requires two full-time system managers, contracted by the vendor. Regardless of the extra help, CHCS still heavily tasks the remaining Automation Support Branch personnel.

The implementation of CHCS was completed in record time, but due to an inefficient planning process, the system must be re-evaluated and possibly re-engineered due to extremely heavy use (Catron, 1995). During the initial survey to develop the positioning of terminals, few managers gave much thought to the placement of the drops, Local Area Network (LAN) outlets, and many were placed inefficiently. Deployment of the system with dumb terminals or Video Terminals (VTs) was also an inefficient use of hardware. The VTs deployed were only for CHCS. Most managers and providers that had PCs, now had to make room on their desk for a VT as well. This took up needed desk space and cluttered office areas when all that was needed was a software bridge to run CHCS on a PC. Once, the implementation was completed and CHCS became an

indispensable information tool, more drops were requested and use exploded. At last report, the number of CHCS users had exceeded the capabilities of the PC version and plans are being developed to replace it with a VAX® minicomputer system (Catron, 1996).

During 1995, Medical Command (MEDCOM), one of the hospital's higher headquarters, provided two Pentium® computers to be used as servers for a new Office Automation Local Area Network (OA LAN), replacing the current OA LAN. The implementation of the new LAN, became critical because of the increasing use of CC Mail® on the new LAN which was not available on the hospital's older system. MEDCOM, and most of the medical organizations in the Army were quickly migrating to CC Mail® as the primary means of communication of electronic mail (e-mail) and required that executive staff be connected. Shortly after the new OA LAN was installed, senior leaders in MEDCOM were calling and requesting that the hospital's executive leaders get 'connected' so that they could receive the deluge of information being passed along in the new application.

Along with the use of CC Mail®, other upgraded versions of software were being used and communicated to the hospital, thus again requiring the hospital suddenly upgrade its software in order to read what was being sent through e-mail. E-mail messages were being sent with attached documents written in WordPerfect® 6.1. The Automation Support Branch had to quickly buy copies of the upgraded software so that senior leaders could read the messages and respond back. The hospital's current DOS-based programs were no longer the standard. To compound the problem, a lack of clear guidance from higher headquarters, as to what software programs were the standard, created a dilemma of what to buy and deploy. The dilemma was exacerbated by the need to upgrade computers in order to run the upgraded software and then train the staff on how to use the new software (Catron, 1995).

The Heath Service Support Area (HSSA), another higher headquarters, purchased and provided the hospital with Video Teleconference Conference (VTC) equipment. Video teleconference meetings were becoming more frequent. Tricare (Region Six) Headquarters, another headquarters, made plans to provide BJACH with another VTC system specifically designed for telemedicine purposes. Other agencies were also purchasing and deploying equipment to the hospital with what appeared to be little thought towards interoperability with the hospital's existing systems or support requirements to operate and maintain the new systems. Instances of computer equipment just showing up without the prior notification was not uncommon. Organizations providing the new system were not considering support requirements to maintain the systems, they were just buying the computers.

Currently the systems shown above are in place or coming to the hospital. The Automation Support Branch is required to operate, maintain and train users on the majority of these systems. A couple of the applications, like the Telemedicine system and VTC system are operated by different departments and are not under the direct control of the Automation Support Branch. Other information systems and tools like facsimile machines and the telephone system, which normally might fall under the control of an information manager, also are supervised by other departments. The realm of responsibility for the support team is solely computers and software applications. This is why the department is called the Automation Support Branch and not the Information Management Office.

The Automation Support Branch has 6 personnel assigned, with just two additional employees that work for the CHCS contractor. The excessive workload often exceed the abilities of the current staff to accomplish daily requirements which results in reduced system maintenance and an inability to train hospital users on new systems. Support personnel believe that new systems are too often deployed with little thought given to the support requirements to run the new systems. Table 1 shows just some of

the computer systems in place or are projected for installation. Overworked and frustrated, support personnel struggle to keep systems running. Requirements to install new programs to keep up with advancing upgrades keeps the branch constantly reacting to tasks instead of planning implementation programs (Thompson, 1995).

Table 1: BJACH Information Systems (ILT Morton, 1996)

Abbreviation	System Name	Status
OA LAN	Office Automation Local Area Network	On-site
OHMIS	Occupational Health Management Information System	On-site
MHCMIS	Military Health Care Management Information System	On-site
CHCS	Composite Health Care System	On-site
NMIS	Nutrition Management Information System	On-site
TPOCS	Third Party Outpatient Collection System	On-site
TAMMIS	Theater Army Medical Management Information System	On-site
UCAPERS	Uniform Chart of Accounts and Personnel	On-site
MEPRS	Medical Expense & Performance Reporting System	On-site
DWRS	Dental Workload Reporting System	On-site
DBSS	Defense Blood Support System	On-site
DDN	Defense Data Network	On-site
MODS	Medical Occupation Data System	On-site
DEERS	Defense Enrollment Eligibility System	On-site
MASS	Medical Analysis Support System	On-site
dCAS	Defense Commitment Accounting System	On-site
PASBA2	Patient Administrative System & BioStatistical Activities	On-site
Tele-Pathology		On-site
VTC	Video Teleconferencing	On-site
ADS	Ambulatory Data System	On-site
TeleMedicine		On-site
DMLSS FCS	Defense Medical Logistics Support System	On-site
SAACONS	Standard Army Acquisition Control System	On-site
TeleRadiology		On-site
IFICS	Integrated Financial Control System	Jun 96
DMLSS FMED	Facilities Management Module	Jun 96
AIMS	Automated Information Management System	Jun 96
DMLSS AMEDDPAS	AMEDDPAS Module	Sep 96
DHMRS	Defense Medical Human Resource System	Jan 97
DDSS	Defense Dental Support System	Jan 97
CEIS	Corporate Executive Information System	FY 97

A lack of centralized decision making in the Army, with regard to computer systems, has resulted in a system wide inability to share information. This lack of integration prevents any one program from being able to gather information across systems to provide an overall picture of hospital performance. Data gathered by one system can not be used by other hospital systems. If a requirement exists to transfer data from one system to another, it usually must be re-keyed. No single program can draw data from multiple programs for consolidated use. Too often, data is recreated numerous times in different programs, increasing the chance for errors.

Overall, there is very little organization to the hospital's information systems. The Automation Support Branch is too busy reacting to unforeseen requirements to effectively plan for upgrades. Hospital staff members are frustrated with old programs, slow and inefficient computers, and the lack of available training. External organizations are the primary catalyst for change rather than a strategic plan. Finally, there is very little data available about the information needs of hospital staff other than hallway conversations and desperate requests for new computers and better software.

Statement of the Problem

Bayne-Jones Army Community Hospital does not have a method to determine its information needs, a process to evaluate its current information systems for efficiency and effectiveness, or a way to easily consolidate the information needed to make timely, intelligent decisions about its information systems.

Literature Review

The format for a health information plan varies depending on what source you use. JCAHO does not propose any specific format so long as the plan fits the internal and external information needs of the organization (JCAHO, 1996). JCAHO scoring standards detail specific requirements that must be addressed in some manner in order to

receive survey credit but the order is irrelevant. Upon review of the JCAHO standards, they can be categorized into five basic areas (JCAHO, 1996):

1. Information process improvement
 - Identification of needs
 - Identification of resources, processes, and customers
 - Evaluation of processes and implementation of improvements
2. Security and confidentiality of information
 - Protection of patient information
 - Protection of provider privileges and autonomy
 - Confidentiality of hospital business
3. Utilization of information
 - Standardization of data
 - Timeliness, reliability, and validity of information
 - Aggregation of information
 - Knowledge-based information
 - Comparative information
4. Personnel training
5. Medical Record documentation
 - Completeness
 - Legal compliance

A review of the current literature supports these five basic categories in that they are often discussed in detail. Two additional subjects are also discussed frequently: a

historical review and the evaluation of different models or systems. Each in turn is discussed for inclusion as a chapter of the health information plan.

Historical Review

Inevitably, if an organization wants to tell someone (i.e. the JCAHO survey team) how far it has come, it must first state from where it came. A general review of events and characteristics of an organization's past health information system is a common theme in many of the journal articles. General descriptions of the facility and its health care capacity are also included to give the description relevance. An article by Elaine Zablocki, describes the Boston-based Brigham and Women's Hospital as a 700-bed academic medical center with 36,000 inpatient admissions and 630,000 outpatient visits per year. She describes the tremendous savings produced by their new information system, which was committed to by hospital executives over 10 years ago. Elaine also describes the Henry Ford Health System and the Regenstrief Institute for Health Care and details their information system development (Zablocki, 1995). Simple descriptions such as this, help to establish a reference point for the information system planners as well as paint a picture for the examiners of the health information plan.

One of the values of a historical review is to examine the health information system development and determine the efficiency and efficacy of the process. Lessons learned by the hospital and those learned by other hospitals should be a consideration when planning for the future. Critical issues such as negotiating with vendors for new systems is often done without the benefit of lessons learned by other organizations (Kalyvas, 1996). Examination of the present information system provides important information about its evolution and the decision making processes involved. For instance, a hospital that has multiple systems operating at once, is indicative of a delegated decision making process. As the hospital evolved, the functional divisions within chose information systems that best fit their particular needs. Called open architecture systems, there is debate as to whether or not this is the most effective process

for development of a health information system(Aller, 1991). If the governance decides it is not, then considerable reengineering efforts must be undertaken to reinstate a centrally controlled health information system (HIS) (Bloom, 1995).

Information Process Improvement

A clarification of the difference between data and information, although seemingly basic in nature, is important for a hospital to determine. Data is simply a collection of facts in the form of numbers or words. "Data is the raw material from which information can be generated (Worthy & DiSalvio, 1995)." Information is data that can effectively be used for a purpose. Information has several distinguishing characteristics that can be measured - accuracy, timeliness, completeness, conciseness, and relevancy (Worthy & DiSalvio, 1995). Too often, hospital executives are overloaded with data but are starved for useful information. This is often referred to as the D.R.I.P. syndrome: data-rich but information poor (Reed, 1995). Awareness of this is the first step to refining a health information system. "An information system is a network of steps taken to collect and transform data into information. Many so-called 'information systems' actually are data systems - they collect and transform data into more data (Worthey and DiSalvio, 1995)."

Worthey and DiSalvio propose that there are nine basic steps in the network that form an information system:

1. Classifying: Identifying information needs and the data required to fill the need.
2. Collecting: The process used to gather the data.
3. Recording: The actual recording of data.
4. Sorting: Organizing the data to facilitate processing.

5. Calculating: Summarizing and analyzing the data.
6. Storing: Media in which data and information is held.
7. Retrieving: Process of finding and retrieving the information when needed.
8. Reproducing: Method of duplicating the information for multiple use.
9. Communicating: Delivering the output to those who need it.

Understanding each step in the process helps to break down an information system into definable steps. Each step can also be evaluated in terms of the previously mentioned 'five characteristics of information' to determine the efficiency and efficacy of the process. Together, the nine basic steps to an information system and the five characteristics of information, can be the basis for an evaluation of a hospital's HIS and possibly help in the construction of a new system if need be (Worthey and DiSalvio, 1995).

Security and Confidentiality

JCAHO standards require that security and confidentiality of data and information be maintained, especially when it concerns patient information (JCAHO, 1996). JCAHO does however recognize that there is a tradeoff between security and accessibility. The more secure information is, the less accessible it is, and visa versa. JCAHO standards do require that a hospital recognize the trade off and address it in a hospital policy. To develop that policy, an understanding of what types of security problems there are is prudent. Security problems can be broken down into five categories (Worthley and DiSalvio, 1995).

The first type of security problem involves safekeeping the computer equipment from physical damage or theft. If the equipment is damaged or lost, the information contained within could also be lost. The second category, similar to the first, involves

simple loss of data. The computer need not be destroyed or stolen for the information to be lost. It is probably more likely to be lost by an unknowing user deleting a file. Sometimes unsuspected actions, like running a vacuum cleaner over a back-up tape, can be the cause of lost data. Vacuum cleaners can sometimes contain very powerful magnets in them. Frequent backups of data and information must be a regimented part of the information process. Storage of backup information must also be considered. If a computer room is destroyed by fire, the backup tapes can do no good if they too were stored in the computer room (Worthley and DiSalvio, 1995). Off site storage of information is recommended by JCAHO as part of a disaster recovery plan. Other emergency provisions for protection of data and information should also be included in this section of the health information plan (JCAHO,1996).

The third category of security involves manipulation of the data. Data can be changed, erased, or destroyed with little evidence of tampering by knowledgeable employees (Worthley and DiSalvio, 1995). Their purpose can be as innocent as mistakenly being in the wrong file or as deceitful as deleting a friend's medical records containing evidence of his or her drug abuse . Unauthorized access into a system is another category of security violations. These intrusions could be achieved by outside personnel, sometimes referred to as 'hackers,' or by employees. It involves using various methods to defeat system security measures. The final category of security violations is the misuse of equipment or data for personal gain. Using E-mail for personal gain, copying patient data for marketing purposes, or even just playing games on hospital computers during work hours can all be considered misuse of the hospital information systems.

The first step in developing security policies for the hospital is to organize the hospital's information (Worthley and DiSalvio, 1995). This is described as a three step process: (1) review data needs, (2) eliminate unneeded data, and (3) classify needed data into security-related categories such a routine, sensitive, and critical. From these

categories, priorities for protection can be established and policies for maintenance of security and confidentiality can be developed (Worthley and DiSalvio, 1995).

Utilization of Information

How is the information used? To understand this, it is important to recognize that there are several types of information in a system. Laudon and Laudon define 6 major types of information systems (Laudon and Laudon, 1994). The first and lowest level of information systems are transaction processing systems (TPS). A TPS consists of operational level processing of data; the sorting, merging, recording, etc. Accounting, sales, and payroll functions are just some examples. Above TPS are knowledge work systems (KWS) and office automation systems (OAS). Both of these systems operate in what Laudon describes as the knowledge level of an organization.

Knowledge workers are those in a recognized profession, usually possessing a college degree like doctors, engineers, etc. These people not only gather data, but also create it based on their expertise. An OAS typically handles most of the administrative functions of an office like word processing, scheduling, communication, etc.

The next level of information is the management information systems (MIS) and decision support systems (DSS) designed to help middle managers project outcomes, manage budgets, analyze productivity, etc. A DSS has more analytic power than a MIS but both draw information from lower systems to use in providing managers with information with which to make decisions. Executive support systems (ESS) are those used by top executives to develop strategic plans, a 5 year analysis, etc. The key to this categorization is that lower systems feed into higher systems and become less structured (Laudon and Laudon, 1996). Recognizing the categories at work in an organization can help to determine how information is used. In a hospital, physicians and other care

Types of Systems

Executive
Support Systems
(ESS)

Strategic-Level Systems

5-year sales trend forecasting	5-year operating plan	5-year budget forecasting	Profit Planning	Manpower Planning
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Management
Information Systems
(MIS)

Decision
Support Systems
(DSS)

Knowledge-Level Systems

Knowledge
Work Systems
(KWS)

Office
Automation Systems
(OAS)

Engineering Workstations	Graphics Workstations	Managerial Workstations
Word Processing	Image Storage	Electronic Calendars

Transaction
Processing Systems
(TPS)

Sales/Marketing Manufacturing Finance Accounting Human Resources

Figure 1: Information System Categories (Laudon & Laudon, 1994)

givers are knowledge workers. They take in data from the patient and from other ancillary services and create information. Administrative managers and executive leaders can also be considered knowledge workers. They take in data about operations in order to create plans for execution. Examples of transaction processing systems (TPS) in a hospital are billing procedures, appointment templates, or logistic processes. Figure 1 shows how each of the levels of information is built on the others. Data from the various fields listed at the bottom, start at the operational level and is transferred as information up the chart through the higher levels. Eventually the information is collected, analyzed and summarized for use at the executive support level.

Unfortunately, no executive support exists at Bayne-Jones Army Community Hospital system and there is very little in the way of a decision support systems. No one system has the ability to pull data from the other various systems to help in predicting trends or outcomes. CHCS provides some summarized data that can be considered decision support in content but not executive support. Future plans include the implementation of the Corporate Executive Information System (CEIS) that can extract information from all of the current computer systems, but currently that capability must be done manually.

The professional literature is full of examples of how hospitals are striving to improve information utilization. Some hospitals are building new systems like the Graduate Health System in Philadelphia (Katz, 1995) or the Los Angeles County - USC Medical Center joint project (Yu, 1995) to completely replace the systems they currently have in place. Other hospitals are buying systems that operate over the existing computer systems to consolidate information for uniform access (Dotson, 1995) or programs that can move between programs to interpret needed information (Gilchrist, 1995). Chief Information Officer (CIO) Ray Shingler, reports that his organization has reengineered their system to create data repositories to provide for an integrated health information system (Braly, 1995). Other hospitals are creating systems that use a

standardized health record formats like Health Level 7 (Gilchrist, 1995). Even Microsoft has embraced Health Level 7 as a standard format and will incorporate it into any new healthcare programs it creates (Gilchrist, 1995). Over and over, the current literature describes organizations that have taken actions to improve the utilization of information.

Use of aggregate data is another key area that is stressed by JCAHO. As stated earlier by William C. Reed, hospitals are too often data rich but information poor (Reed, 1995). Utilizing the available data to its fullest potential is much easier than collecting the data from scratch. Simple organization and publication of available data, referred to by JCAHO as the "aggregation of data," can save lots of redundant work from occurring (JCAHO, 1996).

Training of Personnel

JCAHO standards require evidence that individuals in the organization are trained in the principles and tools of information management (JCAHO, 1996). Regardless of the sophistication of a software program or a data analysis tool, the most productive program to use is the one you know how to use. Implementing an expensive, more powerful software program does little good if the staff members who have to use it do not know how. Staff members will resist any changes made unless the advantages of upgrades are made known and staff members are trained to use them. Otherwise, giving them a more powerful program is only frustrating and disruptive. Education is a key component to any successful system implementation (McMahan and Winsten, 1995). JCAHO emphasizes focusing training in the following areas(JCAHO, 1996):

- security and confidentiality
- use of data collection and analysis tools
- ways to interpret data to help decision making

- training of patients and families to participate in the health care process

Medical Record Documentation

JCAHO requires very stringent standards with regard to the maintenance of patient records. Currently, medical record maintenance in the Army is a function of the Patient Administration Division (PAD) and not the Automation Support Branch. In the military, medical records are still maintained as paper documents and there are no plans yet to create computer-based patient records (CPRs). Security and confidentiality of patient information is one of the primary concerns that prevents the use of a computerized medical record (Thompson, 1996).

Eventually, the issue of CPRs will have to be faced. "A recent survey of healthcare professionals in the USA concerning CPRs, showed that 52% of the respondents (570 healthcare professionals) are expecting the implementation of a computer-based patient record within the next 5 years, while 43% expect that it will happen but not before the turn of the century (Pluyter-Wenting, 1995)." If the results can be generalized to military healthcare professionals, then we too are expecting to computerize our medical records sometime in the future. Therefore it would be prudent for this health information plan to include some discussion about CPRs, if only to stay abreast of published successes and failures. Also, even if the medical records cannot be computerized at this time, there are other operations or functions within the medical records department that can be improved through automation.

Evaluations of HIS Models

"Until recently, the technological evolution of information systems (IS) within the health care field has been relatively slow and sporadic in comparison to IS development in other industries. (Tan, 1993)" Years of buying various computer systems piece by piece, has escalated into a frantic search for the ultimate, fully

integrated, user-friendly, networked health information system. The majority of the professional literature that references information systems, talks about new networks, new hardware platforms, software programs, or new reengineering projects that create more efficient information processes. Only a few studies have examined entire systems to determine their ability to succeed as a model.

One such study, conducted by researchers Ferrand, Chokron, and Lay, looks at several different models for planning hospital information systems, and questions their effectiveness. The conclusion made in the study is that there is no one best method. Effectiveness of a planning system depends greatly on the structure and dynamics of the organization using it. Several points made by the authors do have significant impact on this study. The authors point out several indicators that can help in analyzing the effectiveness of an information system. An ineffective information system has one or more of the following characteristics (Ferrand, Chokron, and Lay, 1993):

- Key areas of the management of a hospital lack information system support.
- The balance among the diverse categories of information systems is heavily out of equilibrium.
- The growth of numerous unrelated IS applications in the hospital may prevent useful interrelationships from being exploited.
- Centralized IS planning in the hospital does not cover all IS developments.
- The coordination between IS planning and the general planning of the hospital is insufficient.

A useful aspect of the study is the presentation of several models for health information systems:

- the One Best Way Model (King, 1987; Ramanujam et al, 1988)

- the Contingency Model (Sullivan, 1985)
- the Model of Intergroup Confrontation (Ferrand and Choken, 1991)
- the Information Control Model (Kim and Michelman, 1990)

A follow up article by Ferrand and Lay, 1995, outlines one model that has a versatile approach to health information system planning by analyzing the priorities of key stakeholders. The key aspect of this model is the development of a health IS portfolio for use in balancing the strategic objectives. By developing a portfolio of applications in the HHS, hospital management can enhance their ability to determine which systems to pursue. This approach also makes use of a User Functional Value Added benchmark to determine the cost or benefit of a particular application. This subjective criteria, although not without faults, is one of the few attempts mentioned in the current literature that tries to quantify the value of information systems (Ferrand and Lay, 1995).

Raymond D. Aller, MD, suggests that an open systems architecture model is the most beneficial. He states that hospitals evolved as open system architecture models by allowing individual departments to buy what best fit their needs; the piecemeal buying mentioned previously. The advantage to this model is that individual departments know what works best for them. Another advantage is that network-based systems will not all go down if the central computer crashes. Incremental growth that allows for smaller financial expenditures is also preferred by some over the enormous price tag often associated with replacing a whole system. In order for an open architecture system to succeed, communication standards like the Health Level 7 medical record format must be implemented. This allows for the development of other programs to extract needed data for use in an executive level information system (Aller, 1991).

An understanding of different health information system models and a clear picture of the hospital's model are important planning milestones. The model that a hospital chooses to work under dictates many of the decisions with regard to the health information plan. The model is a vision of what the system is to look like and how it is to operate. Whether it is an open architecture, piecemeal system or a single vendor, integrated system, all other decisions should be made to support the model vision. For this reason, the type of model should be included in the health information plan vision statement.

Purpose

The purpose of this project was to develop a health information plan for Bayne-Jones Army Community Hospital. To do that, three objectives were established:

1. Develop a format for the Health Information Plan that meets JCAHO standards and incorporates both the needs of the hospital staff and the lessons learned from other organizations.
2. Develop a process for determining the information needs of the hospital staff.
3. Produce a document that the Information Management Team can use as a draft Health Information Plan.

Bayne-Jones Army Community Hospital has chosen to use a multidisciplinary team, the Information Management Team, to develop its policies and strategic plans for its information systems. This project was not intended to take over that mission. The purpose of this project was to provide the Information Management Team a plan they can use to effectively and efficiently accomplish that mission.

CHAPTER 2

METHODS AND PROCEDURES

Development of a Format

A health information plan format was developed based on the topics discussed in the literature review. Each topic was included as a chapter in the plan. The plan contains these seven chapters plus an introductory and reference chapter. Chapter topics are:

1. Introduction
2. Historical Review
3. Information Process Design
4. Security and Confidentiality
5. Utilization of Information
6. Training of Personnel
7. Medical Record Documentation
8. Evaluations of Health Information System Models
9. References

The contents of each chapter was based on the JCAHO standards, recommendations derived from the literature review and on the needs discovered during the development of a hospital information management survey (discussed later). The

introduction of the health information plan starts with a simple statement that explains the purpose of the health information plan. That purpose statement reads:

PURPOSE: This health information plan is provided to help the staff of Bayne-Jones Army Community Hospital evaluate, plan and implement information management processes to meet both internal and external needs. Through continuous improvements in the use of information, Bayne-Jones Army Community Hospital strives to “..Provide the Best” possible care and services to its customers.

The introduction also contains several other documents that are helpful in understanding of the “big picture.” This is a key element in creating the policies and procedures that dictate the hospital’s information management functions. These documents are:

- hospital vision and mission statement
- information management team’s vision and mission statement
- hospital strategic plan
- executive summary
- this report

The second chapter of the health information plan, the *Historical Review*, was designed to give the reader some background information on the hospital’s information systems. Its purpose was also to capture lessons learned in the past so that the staff may

learn from them instead of repeating them. The following topics are present in the historical review chapter:

- overview of hospital
- descriptions of current information systems
- automation branch organization
- general historical record of information system upgrades
- lessons learned

Chapter three, *Information Process Improvement*, contains two primary parts. The first is a definition of information as described in the literature review section. This defines the difference between data and information, and describes the nine basic steps in an information process. It also lists the characteristics of information (Worthley and DiSalvio, 1995). This sets the stage for the second part, the hospital information management survey which is discussed later in this study.

Chapter four, *Security and Confidentiality of Information*, contains the policies and procedures the hospital will use to protect its data and information. The first section of the chapter is the definition of the categories of security as described in the literature review. An outline of security measures currently in use at the hospital follows. Based on the needs assessment and the information above, new policies and procedures are proposed. These were presented to the Information Management Team for approval. Finally, this chapter serves as a user guide for all security related issues in information management.

Chapter five, *Utilization of Information*, contains several important sections. The first section provides information on the standardization of data, formats, software, hardware and communication. The goal is to achieve maximum integration by creating

the standards that ensure interoperability. Recommendations for standards are presented here but the Information Management Team will need to review this section in detail and create the actual standards the hospital will follow. This section requires periodic review as the industry standards change and technology marches on.

The next part of chapter five is the development of a policy that checks the timeliness, reliability, and validity of information. Whether it is a continuous quality initiative or an Automation Support Branch function, the intent is to ensure that the information is useful and accurate. This policy has yet to be developed. A record of the checks should be kept in this section for inspection purposes.

Aggregation of information is a very useful and important section of this chapter. A complete list of the sources of information in the hospital and a definition of the data and information they house is maintained here. This chapter also contains any knowledge obtained about comparative information and describes its potential use.

Training of Personnel, the sixth chapter, lays out the plans and procedures for training personnel in the management of information as well as the tools needed to do so. Outlines for implementation plans, training calendars, and available resources are kept here as well as after action reviews for past implementations.

The seventh chapter, *Medical Record Documentation*, contains the JCAHO standards checklist for reference purposes. All documentation required for this are maintained by the Patient Administration Division. Points of contact and references for JCAHO surveyors are included to assist rapid location requirements. The only other document in this chapter is a record of any actions or policies developed for the use of computerized patient records.

The last substantive chapter, *Evaluation of Health Information System Models*, contains information on current models. The source of this information comes primarily from reviews of the current literature. Copies of articles describing different

information models are kept here for review. The models are to be evaluated by the information management team and the one best model decided on. The details of the model chosen should also be maintained here for review. A recommended model is here as a part of the draft plan.

The last chapter contains a copy of references most frequently used, like a glossary of terms, needs assessment results, and forms created for the purpose of feeding information into this plan. Other documents like a glossary of terms, software cheat sheets and literature references are also kept in this chapter.

After creating the plan and filling it with as much data and information that was available, each member of the information management team was given a draft copy of the draft health information plan for review. Instructions to the Information Management Team members were to review the plan and make comments in response to the following questions:

1. Is the information provide useful in making decisions about the hospital's information system?
2. Is the information provided easy to understand and presented in a useful manner?
3. Do you have any suggestions to make the plan better?
4. Do you want this document to be the hospital's Health Information Plan?

The draft copies and the comment sheets were gathered up and comments consolidated into this report. Based on the those comments, no major changes to the plan were made. The draft Health Information Plan was turned over to the Chief of Logistics for implementation. The Automation Support Branch falls under the Logistics Division at this hospital.

Development of the Needs Assessment Process

The needs assessment process is a critical part to the health information plan. To accomplish this, two surveys were developed. The purpose of the surveys was to determine what information needs the hospital staff have. Together, these two surveys were called the Hospital Information Management Survey. Part one was the individual use survey and part two was the department interview.

The first part is an individual survey (Appendix 1) that captures individual use and potential use of various categories of software applications. An instructional letter (Appendix 2) explaining the purpose and contents of the questionnaire was attached to packets of questionnaires and distributed to department chiefs throughout the hospital. The distribution plan for the surveys was based on the organizational chart shown in figure 2. Each department chief was asked to distribute copies of the survey to all employees. Completed surveys were returned to the author through distribution. In the survey, an ordinal scale was developed to capture how often a respondent uses a particular category of software application. Respondents were asked to place a number in the box next to the application, using the scale provided, to indicate how often he or she uses that application. Two boxes are provided for each category of application. The first block was used to indicate current use of an application, the second block was used to indicate potential use if the respondent does not have access to that application.

Survey responses were loaded into a spread sheet for analysis. The Excel® spreadsheet was chosen over a more powerful statistical analytic tool to enhance exportability to other programs (Microsoft Excel Rel 7.0). For the reliability analysis though, the results were exported into the SPSS® statistical program to calculate a Chronbach's Coefficient Alpha (SPSS Rel. 6.1). Chronbach's Coefficient Alpha, as a measure of internal consistency reliability, is essentially measure of item (test) homogeneity (Bateman and Ferris, 1984). If the survey questions are reliable, the Chronbach's Coefficient Alpha will be high. Based on a survey conducted by

(Appendix 3). The Instructional Letter was also revised as a transition from a study to being part of the health information plan (Appendix 4).

Part two of the hospital information management survey was the department interview survey (Appendix 5). The key element of this survey was the creation of flow charts that capture each department level information process. The purpose of the flow charts are to map out the flow of data and information as it moves through a department. The goal is to capture every information process from its creation at the source to its communication to the customer. To maintain the reliability of the survey, the interviewer doing the flow charting used a survey form (Appendix 5) containing specific questions and flow chart symbols. This helps to standardize the survey across departments. The flow chart symbols are adaptations from the Management Information Systems text (Laudon and Laudon, 1994).

To reduce variability and increase reliability, only the author conducted the sample interviews. Five random departments (picked out of a hat) were interviewed for the validation phase. The author interviewed each department using the survey forms and created flow charts of each information process. Again, the validity of the interview process and results were determined by expert panel (the Information Management Team). The sample charts were given to the team in the draft health information plan. Team members were asked if the results from the survey measured what they intended to measure and whether or not the results were useful.

Development of the Draft Health Information Plan

The final objective set for this project was the production of a document that the Information Management Team could use as a draft for the health information plan. Different types of documents and manuals were reviewed to find one that was suitable for the task. The manual template in Microsoft Word®, version 7.0, was the format. The draft contained all of the chapters discussed earlier and much of the chapter contents.

Some chapter sub-topics were left blank or are filled with samples to give the draft some substance for evaluation purposes. Once the plan was validated by the Information Management Team, the responsibility to fill in the blanks sections or replace the samples was also relinquished.

CHAPTER 3

RESULTS

Individual Use Survey

A packet of ten surveys (Appendix 1) with instructions (Appendix 2) were distributed hospital wide to each department manager. Department managers were instructed to give a copy of the survey to each staff member who uses or could use a computer to accomplish their mission. Managers were instructed to make more copies of the surveys if they were needed. Three hundred and one surveys were returned. Four surveys were found to be incomplete leaving 297 surveys for analysis. It became clear during the data collection phase that there was some confusion about the instructions, affecting the reliability of the results. The calculated Cronbach's Coefficient Alpha was 0.86. Although there are no absolute standards of reliability, a 0.90 Alpha score was preferred in order to surpass most accepted research and applied standards. A summary of survey results is included (Appendix 3) for the purpose of recreating these results.

Comments returned by Information Management Team members, with regard to the validation of the individual use survey, are as follow:

- "Great - but can you include job title on the survey so that responses can be categorized by position?"
- "What do you mean by CHCS - Clinical Use? Define a little better."
- "What if you don't have the program asked about - do you leave the block empty?"

- “Reliability results may be a factor of individual knowledge and not necessarily survey ambiguity.
- “Survey is useful, it can be used to eliminate those programs we don’t use any more.”
- “Take out the potential block and redo the survey. That should eliminate any confusion.”

The following graphs were produced as examples of the survey’s use to help the Information Management Team validate the purpose and usefulness of the survey. Figure 4 shows the average current use of different software programs in the Automation Support Branch. The graph reflects items such as the significant use of CC Mail® over DDN e-mail reflects a shift towards the newer program and could lead to the elimination of DDN e-mail. Figure 5 displays a comparison between departments of average current software use. A list of abbreviations used can be found in the front of this report. This graph gives an overall impression of which programs are used most as well as which departments are heavy computer users. Figure 6 shows total current and potential use of software applications by section. This graph takes into account the number of staff members in each department by adding total index scores instead of averaging them. It reflects the Department of Surgery and the Preventive Medicine Section as having the greatest used and potential use of the computer.

Department Interview Survey

Reliability of department interviews can only be taken at face value. The assumption is made the information provided the author during the interview was reliable. Copies of the sample interviews are in Appendix 8. General comments as to the validity and usefulness of this survey are listed below:

- “Very enlightening. Using the flow charts really help show each step of the process.”
- “Recommendations made are insightful and useful.”
- “Provides a way for us (Information Support Branch) to make recommendations”
- “Helps to point out redundancy in a process.”
- “These flow charts show useless steps in the process.:
- “Makes us ask why we do it that way.”

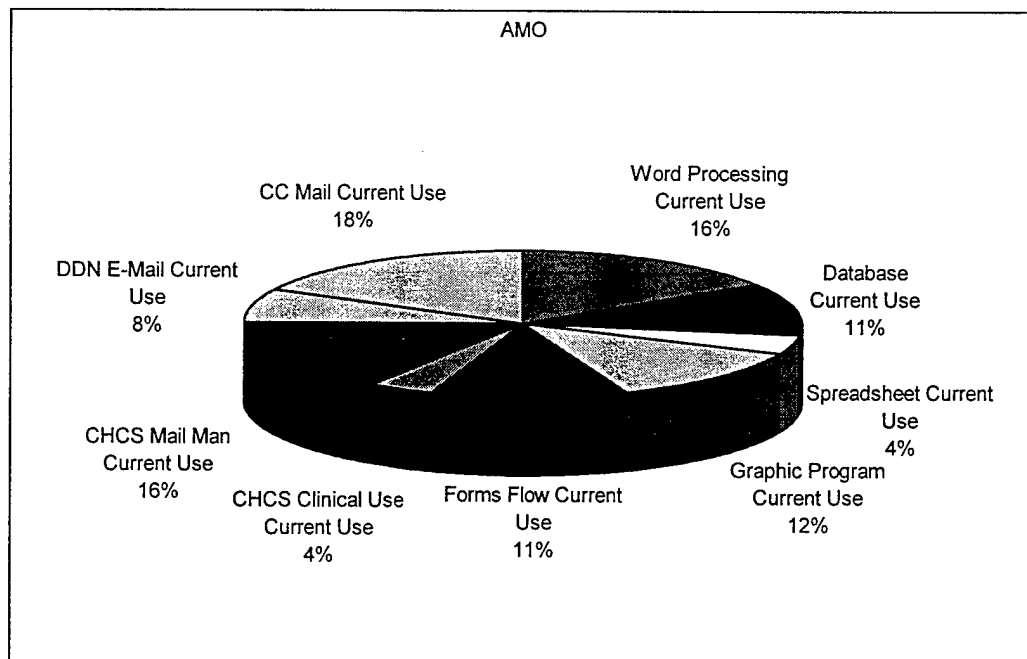


Figure 3: Sample Graph of Software Use by Section

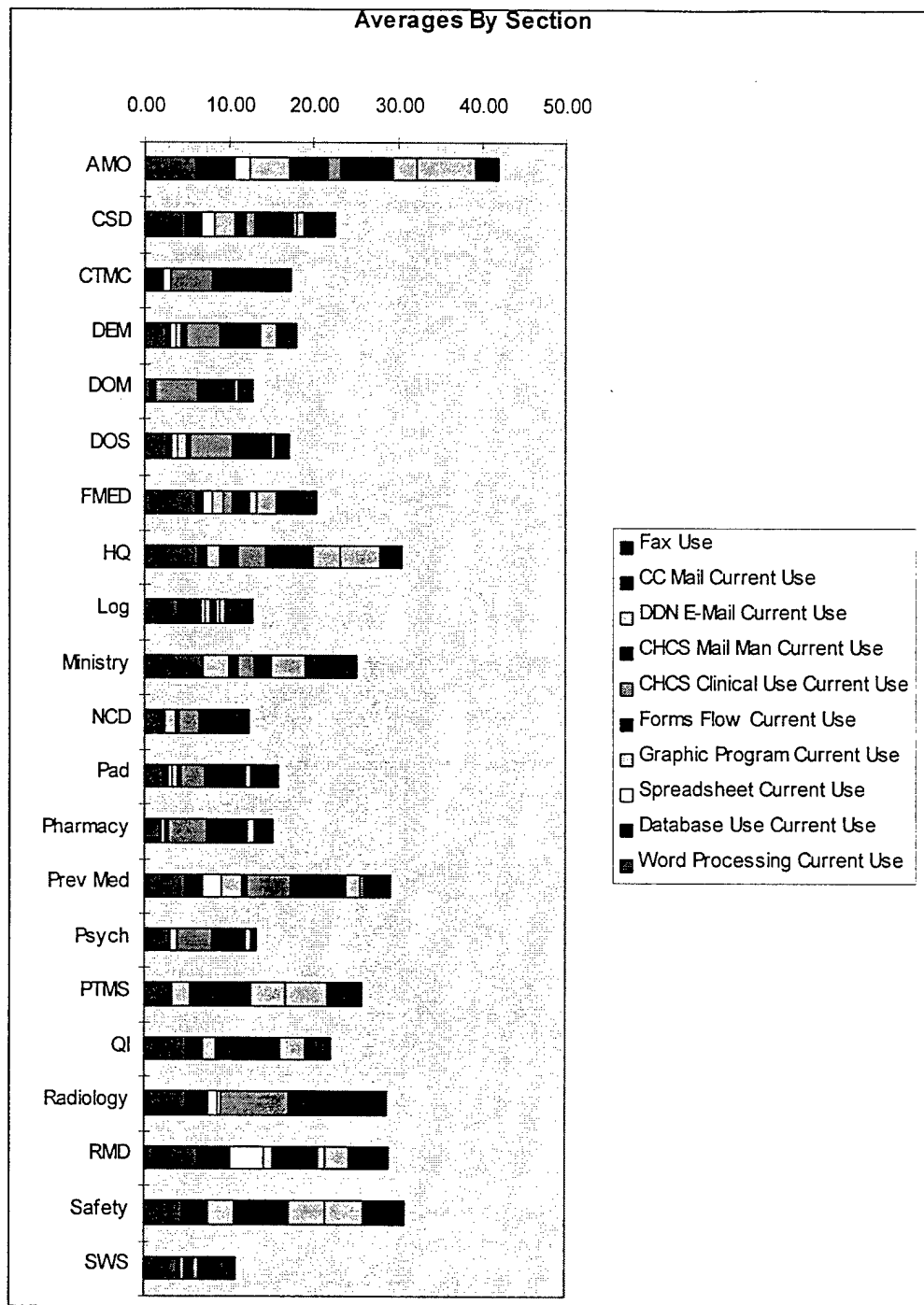


Figure 4: Sample Graph of Department Software Use

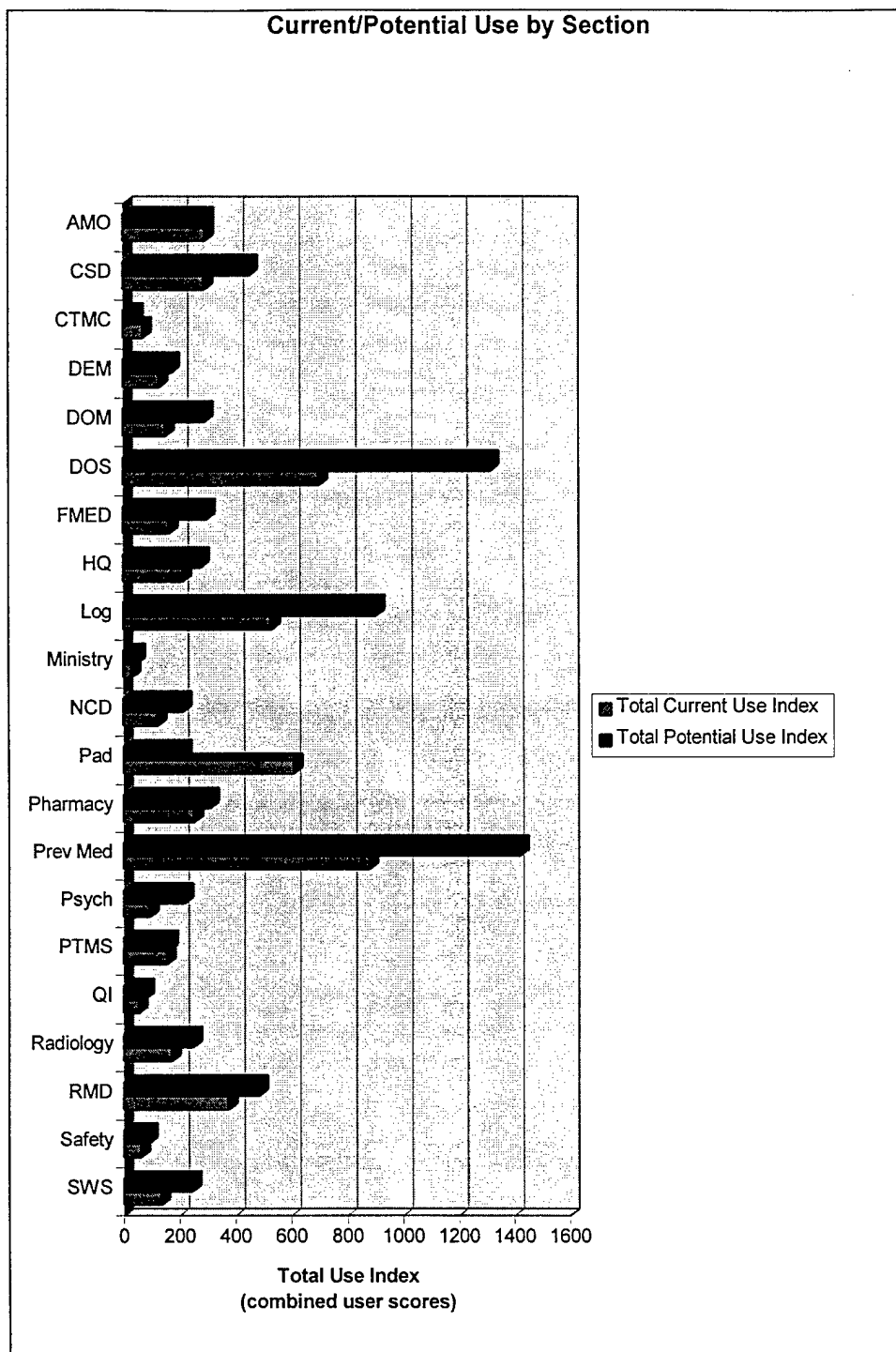


Figure 5: Sample Graph of Total Use Scores by Section

CHAPTER 4

DISCUSSION

There were three primary objectives to this study. The first was the development of a format for the health information plan. This was based on the requirements set by JCAHO, the current professional literature, and the needs of the hospital staff. The second objective was the development of a needs assessment process and the third was the creation of a draft Health Information Plan.

The Health Information Plan Format

The format for the Health Information Plan was developed exactly as planned with the exception of a few additional items. During the execution of the hospital information management survey, numerous comments were made by staff members regarding their lack of general computer knowledge and specific knowledge about new applications. Requests were frequently made for training and general information about the current information systems in place. Requests also came from managers for help in developing departmental policies. It became apparent that there was a need for information at both the individual level as well as the departmental level. In response, additional sub-topics were added to the plan so that it could also be used as an individual guide or as a departmental policy. By varying the content and changing the title sheet, the plan can be the individual Information Management Guide (version 1), Department Information Management Policy (version 2), or the hospital Health Information Plan (version 3). As the version increases, so does the focus of the functionality from individual to hospital wide.

The three versions identified for the plan are different only in the amount of information contained within and its use. The first version is for the individual user. The second is for the department or section manager and the third version is for the Automation Support Branch as the keepers of the overall health information plan. A system of icons was created to help readers find the information they needed. The icons are found in the left margin of the health information plan. The contents of each version is yet to be determined by the Information Management Team. The draft health information plan (Appendix 9), contains the outline meant for the Automation Support Branch and is numbered Version 3. The intent is that as the level of responsibility increases, so does the amount of information in the plan.

Individual Use Survey

The individual usage survey is part of the needs assessment process. The purpose was to develop an instrument for measuring computer use, potential use and record it using a scale with ordinal qualities. Having a numerical value with ordinal qualities allows for value judgments. The higher the scored number, the more often it is used. This provides the Automation Support Branch, a way to prioritize which software programs get deployed based on its increased use. Individuals can be categorized by use as well. Adding scores together give managers tools to estimate who uses the computer more often. This can help determine who should get limited resources.

The original survey (Appendix 1) and instructions (Appendix 2) were distributed hospital wide. During the data collection period, it became apparent that some individuals misunderstood the instructions for filling out the survey. The instructions were to put one number in the first block for your current use and one number in the second block for your potential use. On occasion, only one of the two blocks would be filled out, leaving the survey with missing data. Reliability calculations of different variables in the survey confirmed that the data gathered was not as reliable as it could be.

Several Information Management Team members commented that the "potential use" index was not very useful and confusing. A recommended new survey (Appendix 3) eliminates the confusion by removing the "potential use" block. A new instruction sheet for department managers was also created (Appendix 4) to accommodate the transition from this sample study to its actual use in the hospital.

Initial results from the survey did point to a significant use in office automation software. Word processing, e-mail, databases, and graphic programs accounted for up to 90% of the current use. In other words, those staff members that were using the computer, were using it for administrative purposes versus clinical purposes. Although reliability of the results are in question, indications are that administrative programs are important.

Department Interview Survey

This survey, conducted by interview, was developed to help managers examine the flow of information and data through their department. By creating a flow chart of an information process, the manager can look for ways to simplify the process. Managers can use the flow charts to look at an entire process and can then cut out unnecessary or redundant steps or choose to automate parts of or the whole process. The survey helps by giving managers a tool they can use to map out the flow of information through the departments. The original survey (Appendix 6) was simple and easy to use. Some modifications were made to the form to make it easier to use by managers (Appendix 7). A sample of the interview results are found in Appendix 8.

The department interviews turned out to be an extremely useful tool. By using the survey and creating flow charts of each information process, it was relatively easy to see where fixes could be made to improve efficiency. The survey also served as a way to prioritize missions by identifying the easy fixes as well as difficult problems that required an in depth review. The survey forms and flow charts could additionally be used to

submit system requests to the Automation Support Branch. Rather than the department manager trying to develop a department specific system, managers can submit copies of the survey to the Automation Support Branch. The Automation Support Branch can review the survey and design or recommend solutions. The recommended solutions would meet established standards and have the support of the hospital's information system experts.

Put together, the individual use survey and the department interview, are critical to the health information plan. The purpose of the plan was to consolidate all of the information needed to make timely, intelligent decisions about the hospital's information systems. Without input from the people that use the system, any plan created is incomplete. The surveys provide a way do a continuous needs assessment and setup an environment where the users of the system are the customers and the Automation Support Branch is a service provider.

CONCLUSIONS AND RECOMMENDATIONS

Three objectives were achieved to provide Bayne-Jones Army Community Hospital a health information plan. First, a format was developed for the Health Information Plan that meets JCAHO standards and incorporates both the needs of the hospital staff and the lessons learned from other organizations. Second, a process was developed to determine the information needs of the hospital staff. Third, a document was created for Information Management Team to use as a draft Health Information Plan.

The format for the health information plan was created first. This format started with the JCAHO standards and added to it. Topics often discussed in the current literature were added based on the assumption that frequently visited topics were ones of importance. The contents of the plan were found to be logical and useful by the Information Management Team. The format for the plan brought together all the data and information needed to make effective and efficient decisions about the hospital's information systems.

The second objective achieved was the development of a hospital information management survey. Two tools were developed to meet this goal. The first was the individual use survey. The reliability of the survey must be revalidated with the revised survey but the general content of the survey was found very useful. This survey provides useful information to department managers as well as contributes to the health information plan. Information management technology will probably always be expensive and in short supply. This survey helps the Automation Support Branch prioritize its limited resource. The other tool validated for use in the needs assessment

was the department interview survey. This simple process turned out to be very useful and the most productive tool in the needs process. By simply starting with each paper form used by a department and documenting the information flow process, a graphic representation was created that was easily interpreted and examined. The process was then examined for inefficiencies and recommendations for improvement made. This process both helped department managers as well as contributed to the hospital health information plan. It reinforced the customer-consultant relationship between departments and the Automation Support Branch.

Finally, the design of the health information plan document was modified to provide a way to use it as an individual user's guide, a manager's department policy or as the hospital's health information plan. The format was found to be both logical and useful. The development of the multiple use document was also well accepted by the members of the information management team. The hospital information management survey as well as the guides are expected to raise the hospital staff's knowledge of information management and help in organizational policies.

The development of a health information plan is an important step that all health care organizations should embrace if they have not already. In essence, there are basically just two things that health care organizations do, they treat patients and they manage information about treating patients. Everything else in a health care organization revolves around doing those two things. All tasks in support of allowing providers to take care of patients. In essence, the better we can manage information, the better we can take care of patients.

Through the years, health care organizations have endeavored to improve patient care. Total Quality Improvement (TQI) and Continuous Quality Improvement (CQI) and many others are just some of the initiatives that have taken place to improve patient care. One of the key ingredients to the success of these initiatives is the breaking down of the stovepipe organizational structures that have created domains of power within the

organization. Many health care organizations have learned that cross-functional team approaches are much more efficient and beneficial to the patient. Information managers have also found the same to be true. The rise of stovepipe organizations was often replicated in the information systems that were developed (Bloom, 1995). Each department had purchased or developed their own system that conducted the required missions but rarely integrated with systems. The result was a piecemeal information system that was inefficient at best, much like system at Bayne-Jones Army Community Hospital.

Based on the development of the draft Health Information Plan three recommendations are made. Departmental interviews and the initial individual use results both point to the first item; the need for an integrated office package. Of the numerous information systems dictated for use by other agencies, only the office automation package falls within the domain of the hospital commander. Initial individual survey results showed word processing, e-mail, database, and graphic programs as over 90% of the current use. All of these programs are part of any standard office package. Finally, initial department flow charts showed problems that could easily be improved by office automation software. An integrated, networked office package could provide the greatest rewards in terms of improving efficiency.

The second recommendation is that the hospital use the needs assessment survey as its primary means to gather information about the hospital's information systems. This will involve revalidating the revised individual use survey, deploying it to all hospital staff members and analyzing the information for use in guiding software and hardware deployments. It will also involve training the department managers in the use of the department interview survey. This will document all of the information processes in the hospital and re-emphasize the customer-provider relationship between hospital departments and the Automation Support Branch. By doing this, the Information

Management Team will be able to again develop improvement plans for the hospital's information systems based on internal needs and not just external requirements.

The third recommendation is that the hospital adopt the draft health information plan as the primary policy guiding the hospital's information systems. The Information Management Team can then form teams to fill in the details to the plan, develop the three versions as described, and distribute it to the hospital. In doing so, the health information plan establishes a system of communication that teaches, guides, and provides the information needed to make timely and effective decisions about the hospital's information systems. The health information plan also meets the requirements for the JCAHO survey and should be freely distributed for other facilities to use.

The health information plan provides a process to evaluate the information needs of the hospital and a means to plan for improving the health information systems to satisfy those needs. This plan can be easily adapted to other health care organizations just by using the hospital information management survey and changing the organization specific information. The development of the health information plan is a critical step in regaining control of the hospital's information systems. The health information plan provides a single source reference for the staff members to use in making timely, intelligent decision about the hospital's information systems.

APPENDICES

Appendix 1: Individual Use Survey

Hospital Information Management Survey: Individual Computer Usage

NAME: _____

SECTION: _____

Instructions to BJACH Computer User:

Please rate your current use (1st block) & potential use (2nd block) of the following software applications using the chart on the right.
 ⇒ Then return it to your supervisor or to CPT Eckman, the Administrative Resident. **Example:** If you don't use CC mail now but could if you had it, your rating for CC mail would be: 0 6

Average Usage Rating Scale	
Not used or rarely used.....	0
1-3 times a year.....	1
1-3 times a quarter.....	2
1-4 times a month.....	3
1-4 times a week.....	4
Once a day.....	5
2-5 times a day.....	6
6-9 times a day.....	7
10 or more times a day.....	9

Word Processing Use:

(i.e.: Word Perfect, MS Word)

- Most complex document you work on?
 Simple (i.e.: memos)
- Moderate (i.e.: reports)
- Complex (i.e.: SOPs,)

Database(s) use:

(i.e.: Dbase, Paradox)

Spreadsheet use:

(i.e.: Lotus 123, MS Excel)

- Most complex spreadsheet worked on?
 Simple (i.e.: simple graphs)
- Moderate (i.e.: statistical reports)
- Complex (i.e.: financial models)

Graphic program use:

(i.e.: Harvard Graphics, Power Point)

Forms Flow use:

CHCS clinical use:

(i.e.: Rx order entry, Appointment templates)

CHCS Mail Man Use:

DDN E-mail use:

CC Mail use:

Others: please list below

(i.e.: NMIS, TPOCS, TAMMIS, SPSS, etc.)

Fax use:

Location of fax: _____

Please Return This to CPT Mark Eckman, Admin Resident

Appendix 2: Instructional Letter for Survey

Hospital Information Management Survey (Part 1)

INTRODUCTION

This survey will be used to map out the flow of information within the hospital and determine by what media it travels. It is part of a graduate management project that will be used to build a strategic plan for the hospital's information systems. The goal of this survey is to identify and chart the flow of each information process and to identify information control points and traffic jams. The end result will be a single source reference that you can use to improve information management in your section and to provide a means to better plan for information needs in the future. Your assistance in this endeavor is greatly appreciated and your input sorely needed.

THE SURVEY: PART 1

Part one consists of a questionnaire designed to capture individual computer usage and potential usage. Any BJACH staff member who uses or could use a hospital computer to perform their duties is asked to fill out a questionnaire. Users are asked to rate their current and potential use of various software applications. The ratings are based on a 9 point Likert scale which range from "Not or rarely used" to "10 or more times a day." The results from this questionnaire will be an index of computer use that can help determine high use areas and software application needs.

Routing Slip

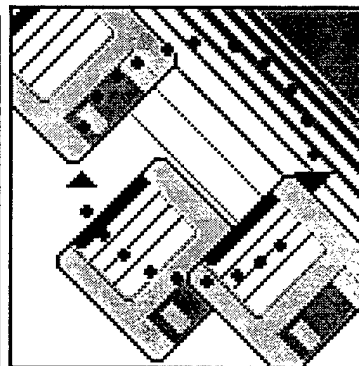
TO:

1. Division
& Section
Chiefs

☒ Action ☒ Note
& Rtn

FROM:

CPT Eckman



INSTRUCTIONS

Please take the attached questionnaires, make more copies if needed, and give a copy to each member of your staff that uses a computer. Once they have filled out the survey, please collect them and send them back to CPT Mark Eckman, the Admin Res, through distribution. If you or your staff have any questions, please call at x3111 or e-mail me on CHCS Mail Man.

THE SURVEY: PART 2

Part two of the survey will be an in depth interview with you and your staff. The purpose is to identify what forms you use to collect data and process information. Using the forms, I will attempt to chart the flow of each information process from the collection of data to the communication of the information to the consumer. **Please grab your calendar and call me at ext. 3111 so that I can set up an interview time.** My goal is to complete the survey by the end of April. Thank you for your help.

Appendix 3: Revised Individual Use Survey

Hospital Information Management Survey: Individual Computer Use

NAME: _____

SECTION: _____

JOB TITLE: _____

Instructions: Please rate how often you use the following software applications by putting a number in the corresponding box. Use the scale provide to determine your rating for each application. If you do not have access to specific type of software application, put a 0 in the box. Please fill in all boxes.

Average Usage Rating Scale	
Not used or rarely used.....	0
1-3 times a year.....	1
1-3 times a quarter.....	2
1-4 times a month.....	3
1-4 times a week.....	4
Once a day.....	5
2-5 times a day.....	6
6-9 times a day.....	7
10 or more times a day.....	9

Word Processing Use:

(i.e.: Word Perfect, MS Word)

- Complexity of documents:

☐ Simple (i.e.: memos)

☐ Moderate (i.e.: reports)

☐ Complex (i.e.: SOPs,)

Database use:

(i.e.: Dbase IV, Paradox)

Spreadsheet use:

(i.e.: Lotus 123, MS Excel)

- Complexity

☐ Simple (i.e.: simple graphs)

☐ Moderate (i.e.: statistical reports)

☐ Complex (i.e.: financial models)

Graphic program use:

(i.e.: Harvard Graphics, Power Point)

Electronic Forms use:

(i.e.:Forms Flow, AMEDD Forms, PerForm Fill)

CHCS (except Mail-man) use:

(i.e.: Rx order entry, Appointment templates)

CHCS Mail-man Use:

DDN E-mail use:

(also called MMDF-II)

CC Mail use:

Others: please list below

(i.e.: NMIS, TPOCS, TAMMIS, etc.)

Fax use:

Location of fax: _____

Appendix 4: Revised Instructional Letter

Hospital Information Management Survey

INTRODUCTION

This survey is part of an information management needs assessment. Its purpose to determine how much staff members use the computer, what programs they use and assign numerical values to that use. By doing so, managers and decision makers can determine who are the primary users of the hospital's computers and what they are using them for. This can help determine priorities for distributing limited resources, provide managers with information about use patterns, and identify areas of high use. This survey was developed for use hospital wide as part of the health information planning process but can also be used at the department level. Managers may wish to use this survey to assist in planning for their own information needs.

INDIVIDUAL USE SURVEY

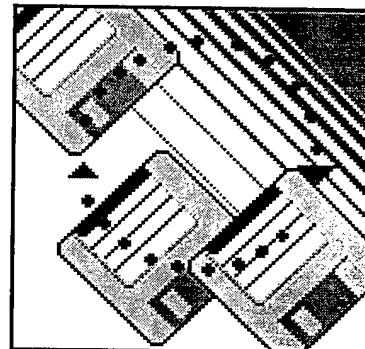
The individual use survey that is attached is for use in the hospital wide needs assessment. Its purpose is to capture individual computer use at a departmental level. Managers are asked to give a copy of the survey to any BJACH staff member who uses a computer to perform their assigned duties. After collecting up the surveys, managers are encouraged to review the results before passing the data

Routing Slip

TO:

1. Division
& Section
Chiefs

☐ Action ☐ Note
& Rtn
FROM:



on to the Automation Support Branch. A simple total of scores will provide some insight into who are the high end users and how information is created and handled within in your department. This information can be helpful in planning for new systems or improving the ones you have.

DEPARTMENT INTERVIEW SURVEY

The second part to the needs assessment is the department interview survey. You will find the forms in the Health Information Plan, Chapter 3. Managers are asked to use the forms to flow chart each information process that occurs in the department. The process can be very revealing as ways to improve the flow of information become evident. Keep the flow charts in your department's information management guide and send a copy to the automation support branch for review. They will also look for ways to help you manage information. Call if you need any help.

Appendix 5: Reliability Analysis Results

D E S C R I P T I V E S U M M A R Y

Number of valid observations (listwise) = 297.00

Variable	Mean	Std Dev	Variance	Minimum	Maximum	Valid N	Label
CCCUR	.96	2.18	4.74	.00	9.00	297	cc mail cu
CCPOT	2.67	2.97	8.79	.00	9.00	297	cc mail po
CHCSCUR	3.15	3.86	14.90	.00	9.00	297	chcs curre
CHCSPOT	3.85	3.91	15.29	.00	10.00	297	chcs poten
DBCUR	1.09	2.31	5.35	.00	9.00	297	data base
DBPOT	2.09	2.57	6.62	.00	9.00	297	data bast
EMCUR	.70	1.82	3.31	.00	9.00	297	ddn e-mail
EMPOT	1.97	2.66	7.08	.00	9.00	297	ddn e-mail
FAXCUR	2.56	2.41	5.81	.00	9.00	297	fax curren
FAXPOT	2.97	2.33	5.41	.00	9.00	297	fax potent
FFCUR	.74	1.87	3.51	.00	9.00	297	form fill
FFPOT	2.01	2.75	7.58	.00	9.00	297	form fill
GPCUR	1.03	1.96	3.86	.00	9.00	297	graphic pr
GPPOT	2.09	2.30	5.27	.00	9.00	297	graphic pr
MMCUR	4.23	3.28	10.74	.00	9.00	297	mail man c
MMPOT	4.99	2.80	7.85	.00	9.00	297	mail man p
SSCOMPLX	.80	1.05	1.10	.00	3.00	297	spread she
SSCUR	.78	1.79	3.21	.00	9.00	297	spread she
SSPOT	2.03	2.36	5.55	.00	9.00	297	spread she
WPCOMPLX	1.63	1.25	1.56	.00	3.00	297	word proce
WPCUR	3.37	3.33	11.11	.00	10.00	297	word proce
WPPOT	4.60	2.95	8.73	.00	10.00	297	word proce

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 297.0

N of Items = 20

Alpha = .8685

Appendix 6: Department Interview Survey

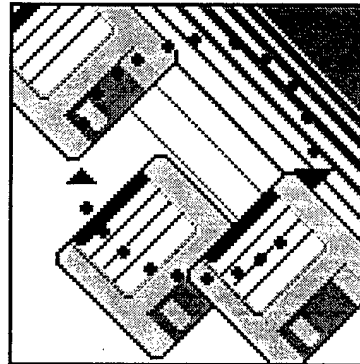
Hospital Information Management Survey(Part 2)

DEMOGRAPHICS

Department / Functional Area:

Contact Person:

(Name, title & extension)



GENERAL DEPT. STRUCTURE

General Mission of the Department:

Special Security Requirements:

FORMS / REPORTS

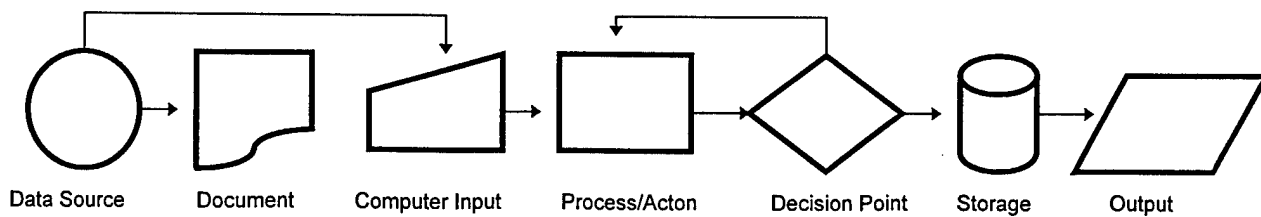
(List and Rate Use)

Average Usage Rating Scale

Not used or rarely used.....	0
1-3 times a year.....	1
1-3 times a quarter.....	2
1-4 times a month.....	3
1-4 times a week.....	4
Once a day.....	5
2-5 times a day.....	6
6-9 times a day.....	7
10 or more times a day.....	9

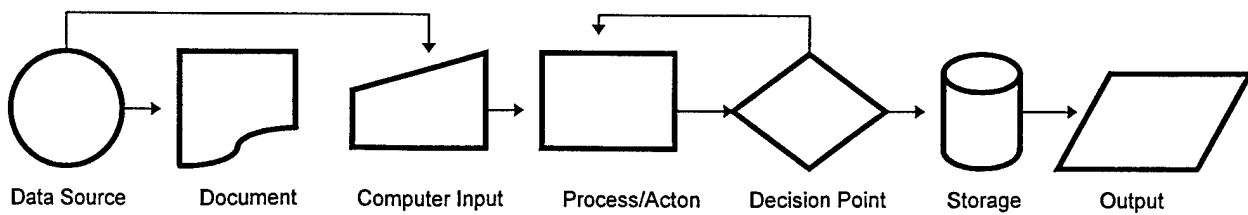
CLINICAL DEPARTMENTAL PROCESSES

(Flow chart process)



ADMINISTRATIVE DEPARTMENTAL PROCESSES

(Flow chart process)



INFORMATION NEEDS

(Recommendations for improvements)

Appendix 7: Revised Department Interview Survey

Hospital Information Management Survey

DEMOGRAPHICS

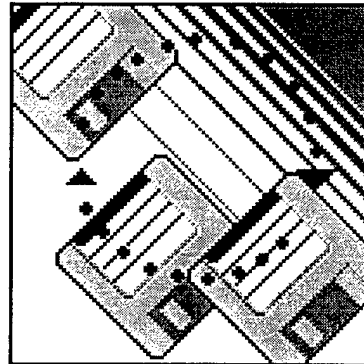
Department / Functional Area:

Contact Person:

(Name, title & extension)

General Mission of the Department:

Special Security Requirements:



GENERAL DEPT. STRUCTURE

FORMS / REPORTS

Instructions: List the name of forms or reports frequently used and rate how often they are used using the rating scale. Attach a copy of the form to help identify it if needed.

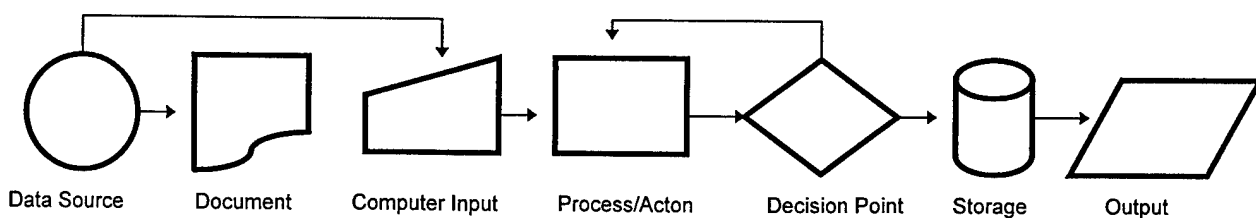
Average Use Rating Scale

Not used or rarely used.....	0
1-3 times a year.....	1
1-3 times a quarter.....	2
1-4 times a month.....	3
1-4 times a week.....	4
Once a day.....	5
2-5 times a day.....	6
6-9 times a day.....	7
10 or more times a day.....	9

INFORMATION FLOW CHART

TITLE: _____

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



INFORMATION NEEDS

Instructions: List any information needs you or the department may have that could improve the mission or patient care.

RECOMMENDATIONS:

Instructions: List any general recommendations for improving information management. Specific recommendations can be written directly on the flow chart form. Sign and date.

Recommendations made by:

Appendix 8: Sample Department Interview

Hospital Information Management Survey

DEMOGRAPHICS

Department / Functional Area:

Psych /
COMMUNITY MENTAL HEALTH

Contact Person:

(Name, title & extension)

DR. BROWN

CPT MAZER

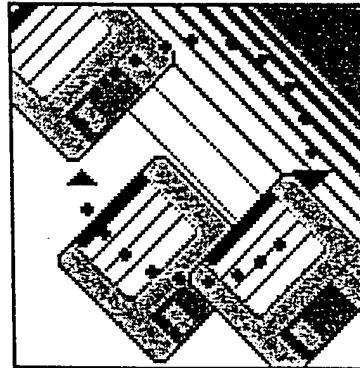
MS. JOAN CHAMBERS

General Mission of the Department:

- TREAT PTS.
- PROVIDE MENTAL HEALTH SERVICES & EDUCATION

Special Security Requirements:

ONLY DEPT. PERSONNEL
ALLOWED ACCESS



GENERAL DEPT. STRUCTURE

FORMS / REPORTS

Instructions: List the name of forms or reports frequently used and rate how often they are used using the rating scale. Attach a copy of the form to help identify it if needed.

Average Use Rating Scale

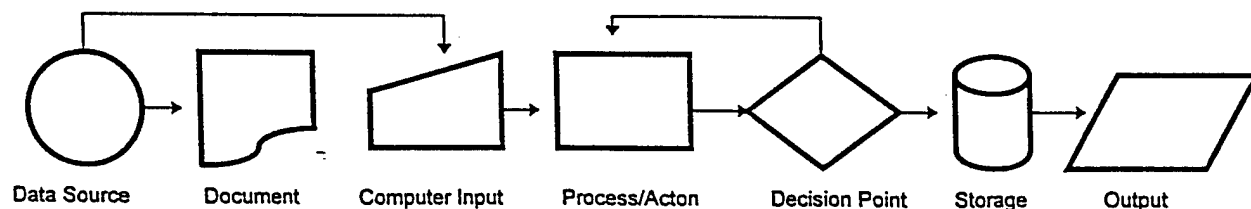
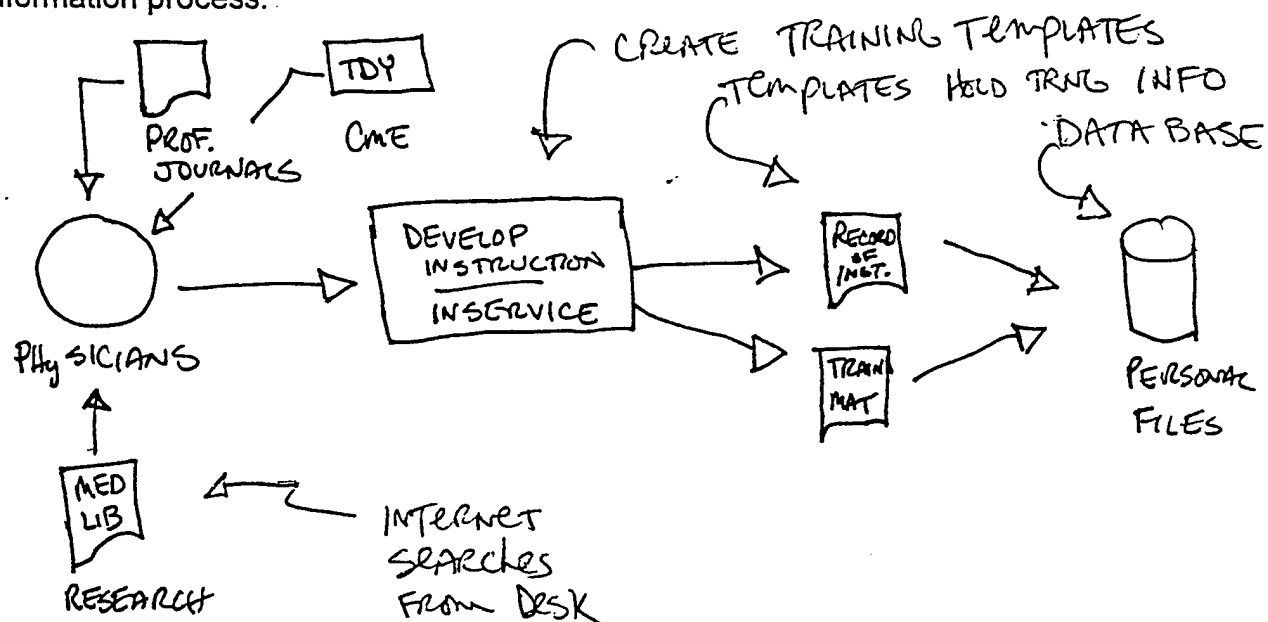
Not used or rarely used.....	0
1-3 times a year.....	1
1-3 times a quarter.....	2
1-4 times a month.....	3
1-4 times a week.....	4
Once a day.....	5
2-5 times a day.....	6
6-9 times a day.....	7
10 or more times a day.....	9

(SEE ATTACHED)

INFORMATION FLOW CHART

TITLE: EDUCATION IN SERVICES

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



INFORMATION NEEDS

Instructions: List any information needs you or the department may have that could improve the mission or patient care.

- IMPROVED COMMUNICATION BETWEEN PROVIDERS/CLINICS
- ACCESS TO OTHER CLINIC INFO (MED LIST)
- TRACKING SYSTEM FOR RECORDS
- BETTER OFFICE SOFTWARE
- MARKETING SERVICES - PROMOTIONS

RECOMMENDATIONS:

Instructions: List any general recommendations for improving information management. Specific recommendations can be written directly on the flow chart form. Sign and date.

- Reduce # of BACKUP systems -
 - PRINT OUT CHCS Reports PERIODICALLY
 - Throw out OLD LOGIN sheets
- CREATE INTERNAL ELECTRONIC MEDICAL RECORD - USE TELEMEDICINE system RECORDS AS AN EXAMPLE
- INSTALL INTEGRATED OFFICE PACKAGE
 - MS OFFICE HAS MOST VERSATILITY & EASY TO USE

Recommendations made by:

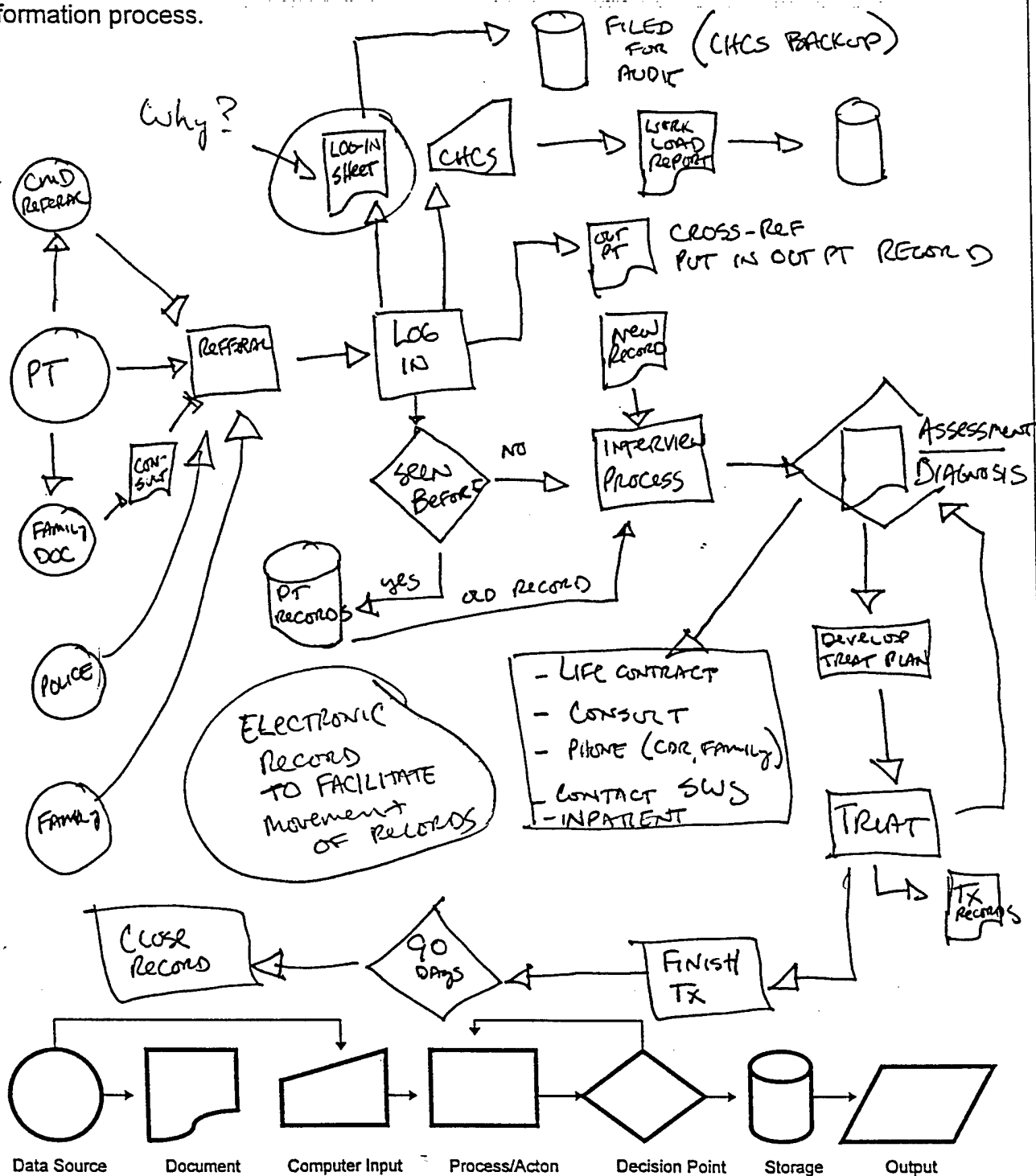
CPT MARK ECKMAN

Hospital Information Management Survey

INFORMATION FLOW CHART

TITLE: GENERAL PATIENT TREATMENT

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



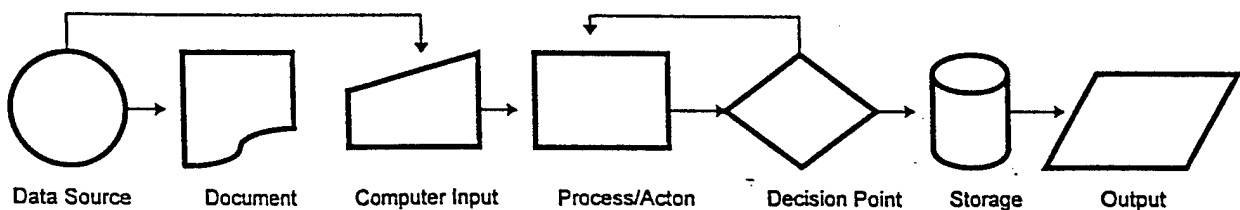
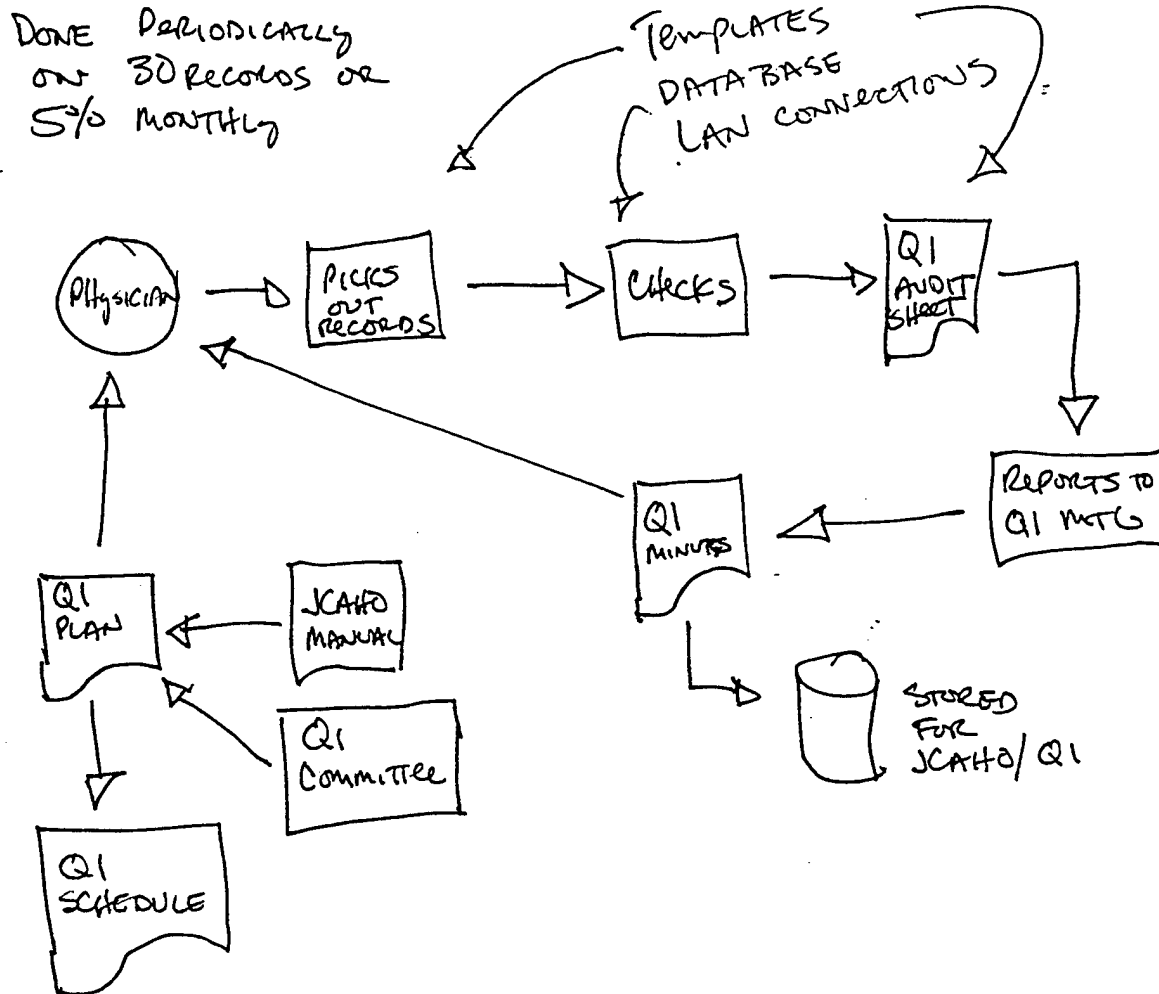
Hospital Information Management Survey

INFORMATION FLOW CHART

TITLE:

QI AUDIT

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



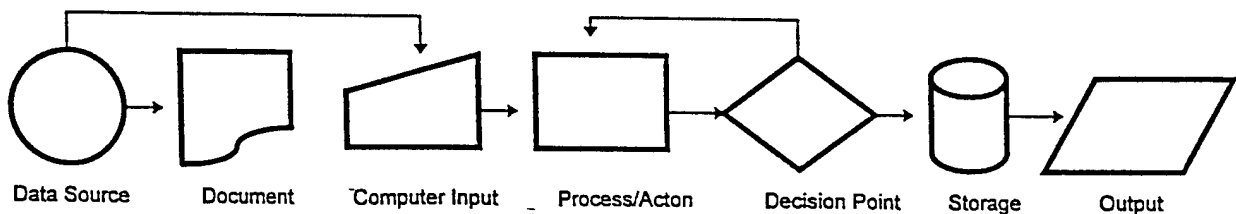
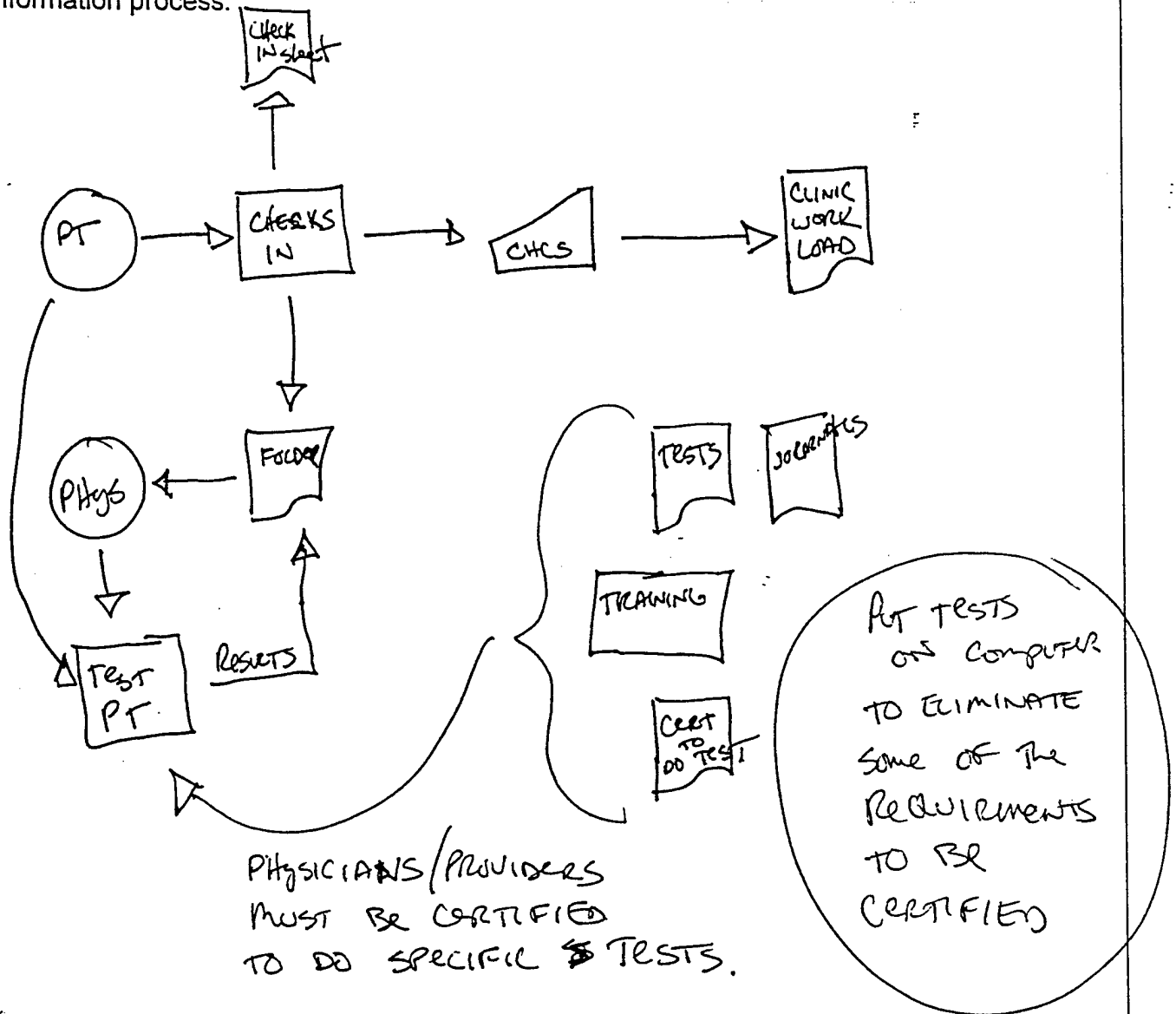
Hospital Information Management Survey

INFORMATION FLOW CHART

TITLE:

PSYCH TESTING

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



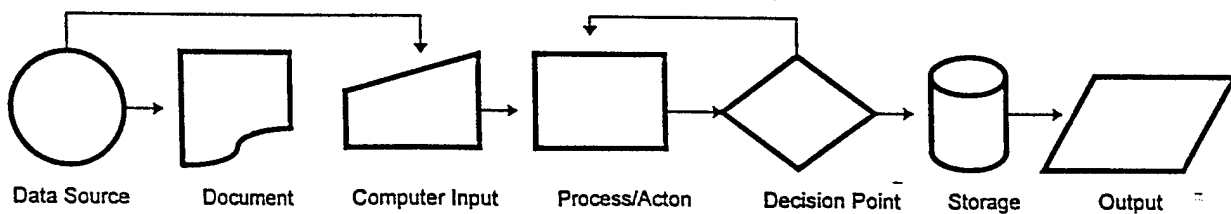
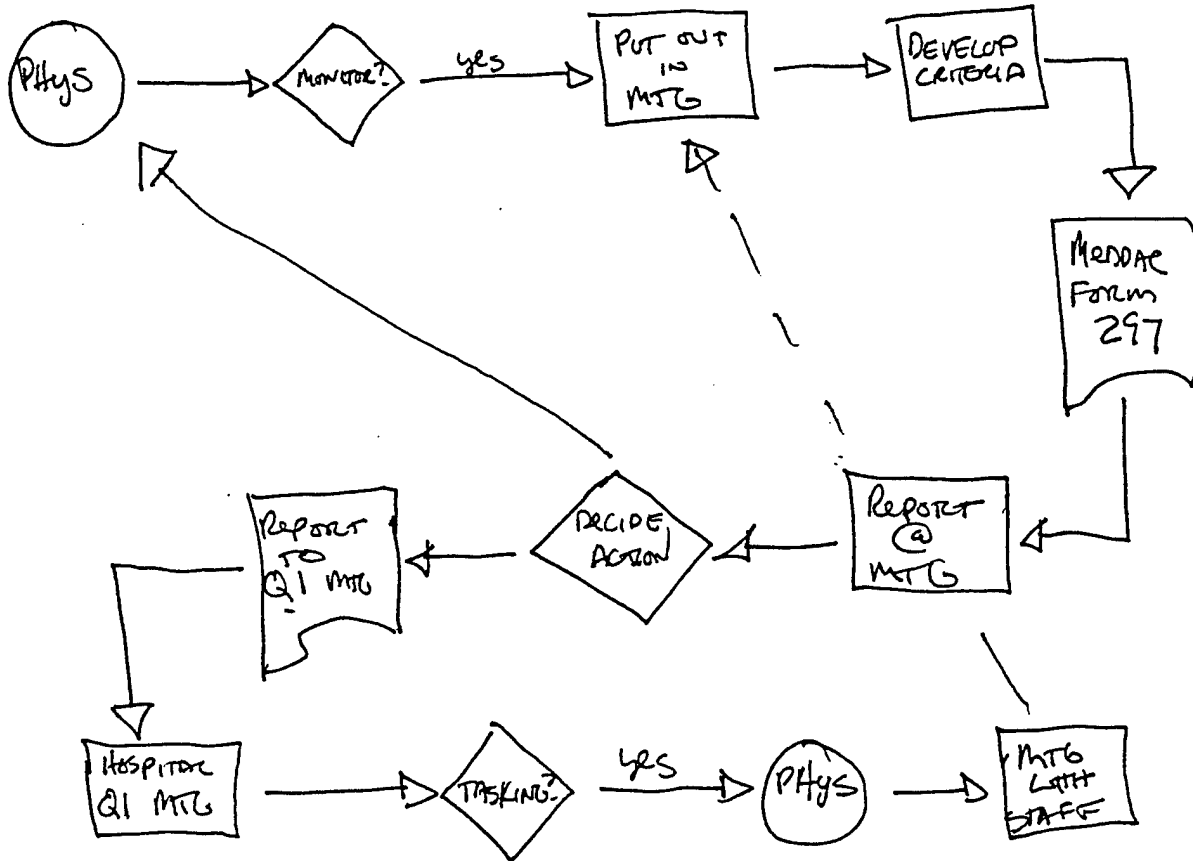
Hospital Information Management Survey

INFORMATION FLOW CHART

TITLE: M&E's (MONITOR & EVALUATIONS)

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.

- CONFERENCE CALLS ON COMPUTER?
- E-MAIL w/ ATTACHMENTS



Hospital Information Management Survey

INFORMATION FLOW CHART

TITLE:

DAMIS (FORSCOM NETWORK)

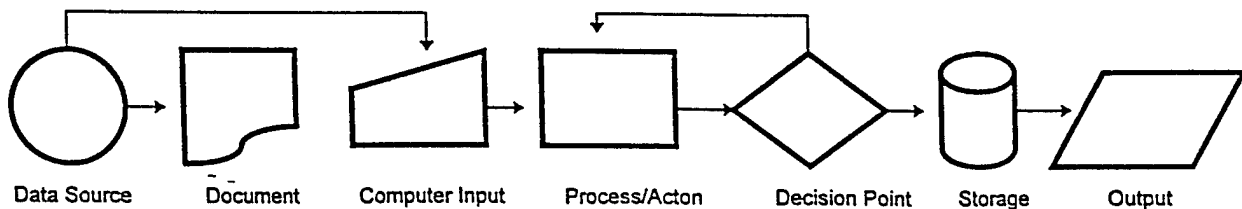
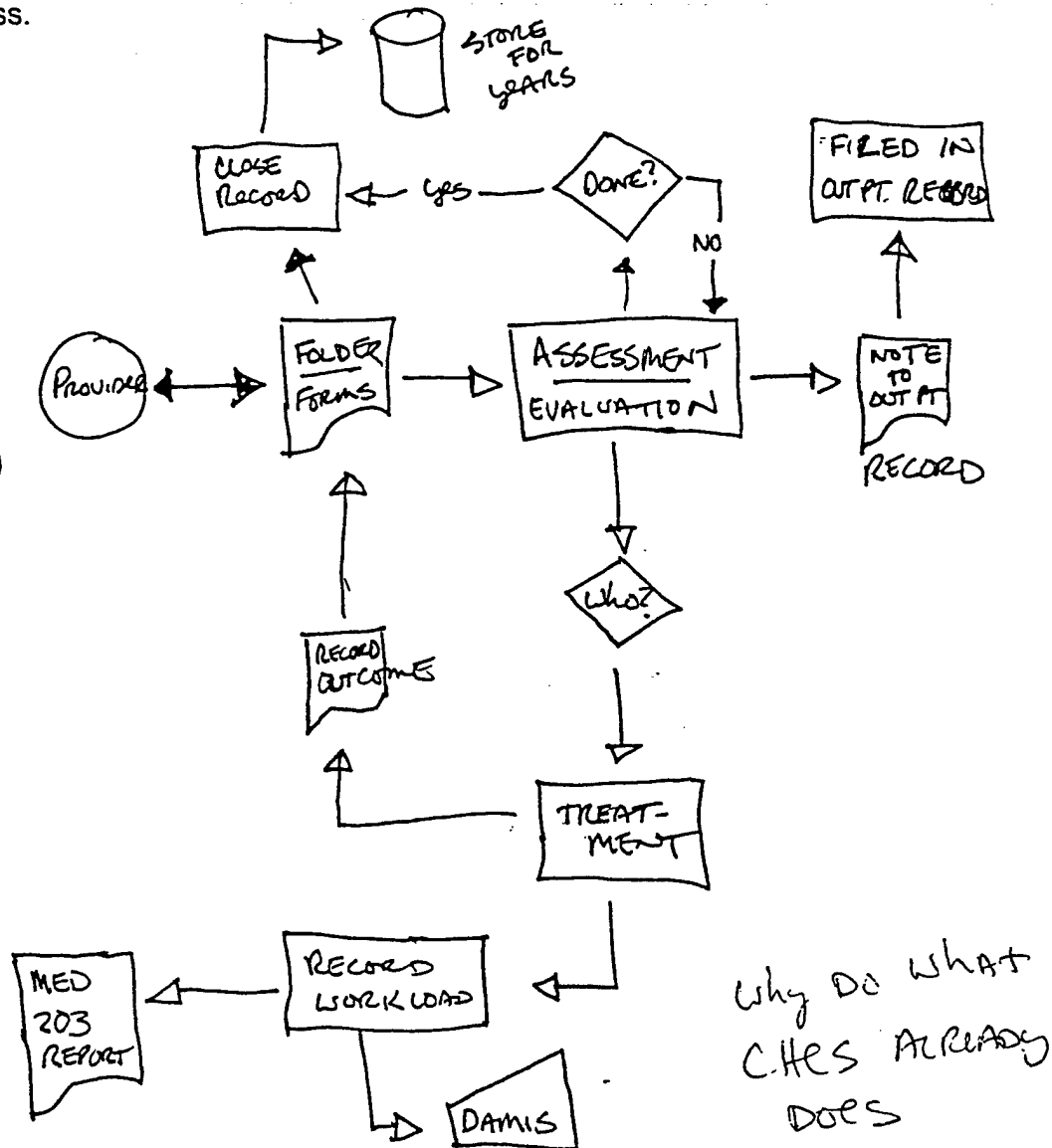
Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.

REFERRALS

CONSULT

SELF

CMD

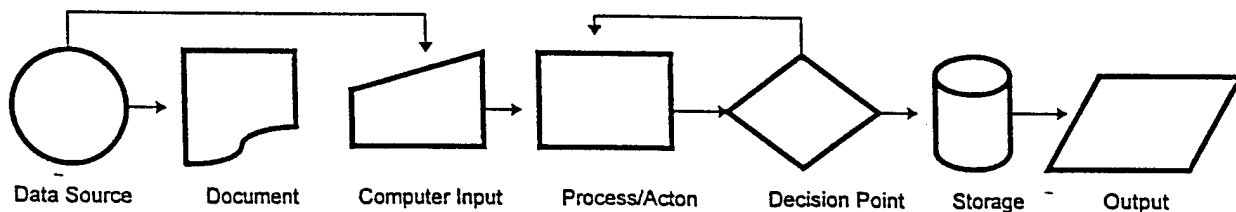
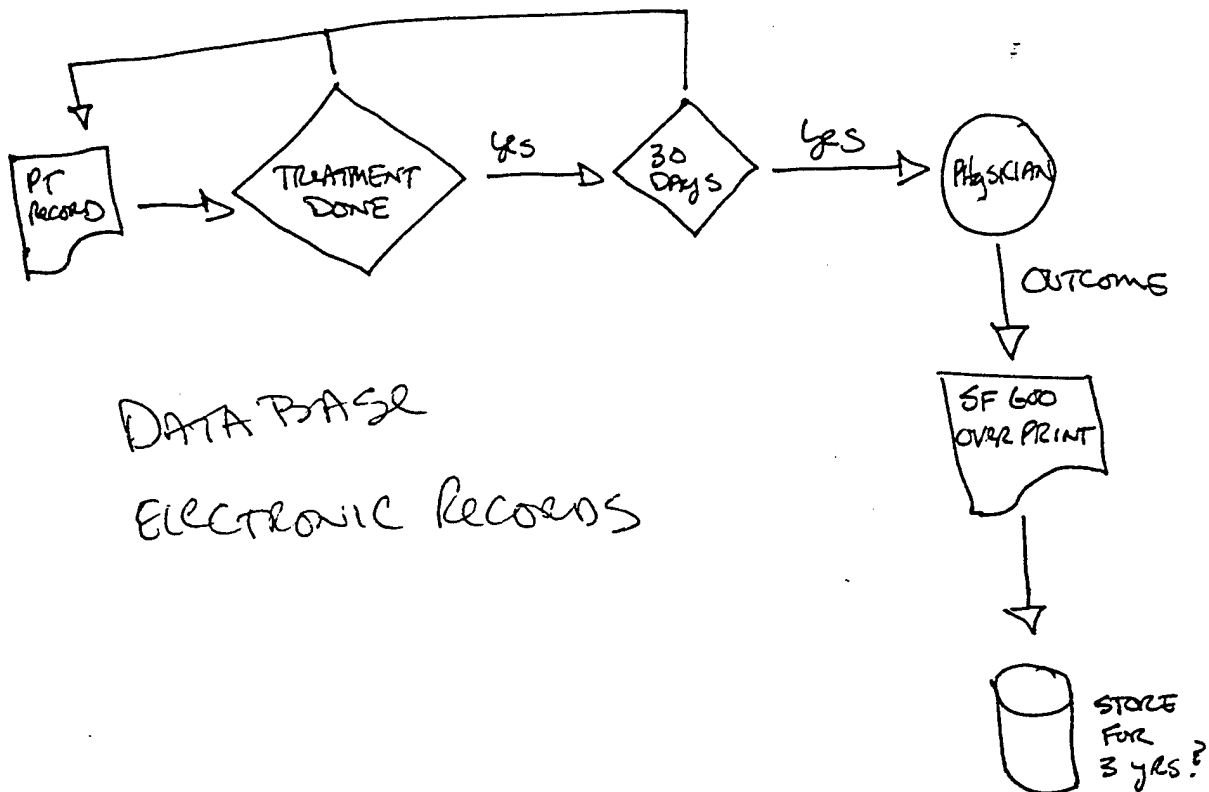


Hospital Information Management Survey

INFORMATION FLOW CHART

TITLE: CLOSE OUT RECORDS

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



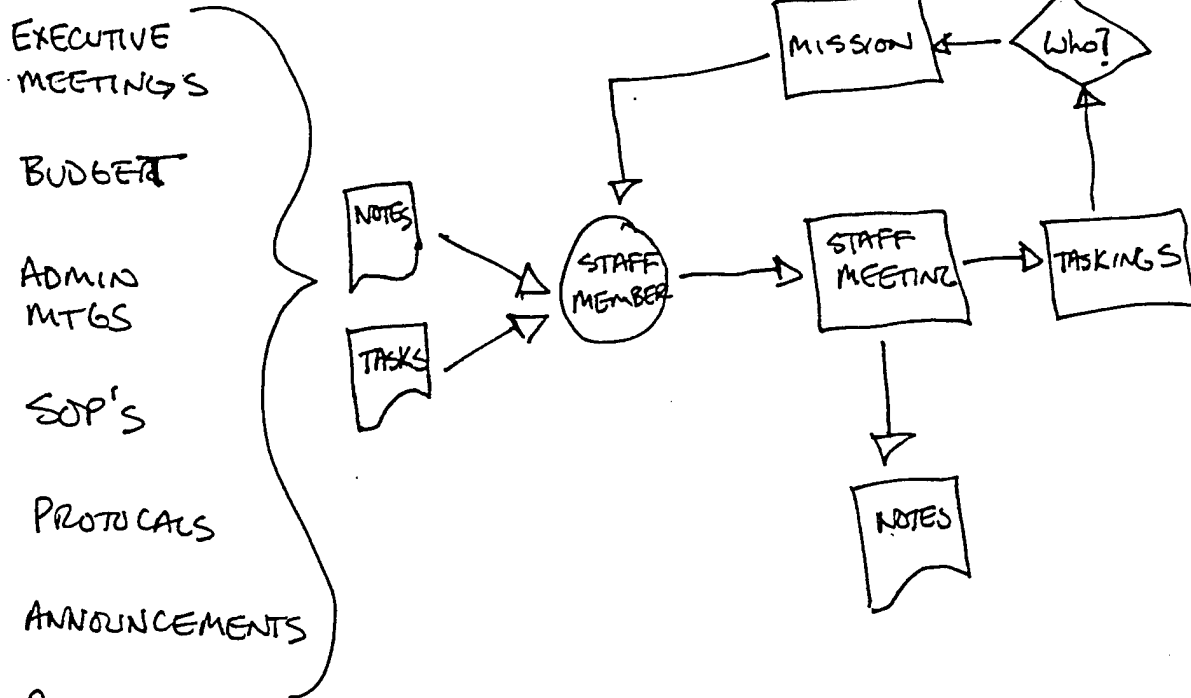
Hospital Information Management Survey

INFORMATION FLOW CHART

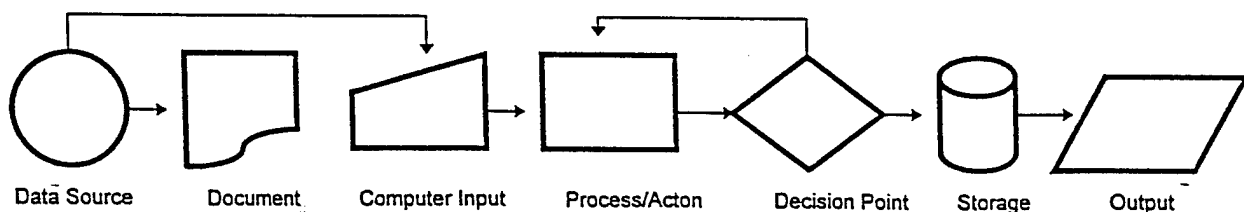
TITLE:

GENERAL ADMIN

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



INTEGRATED
OFFICE
PACKAGE



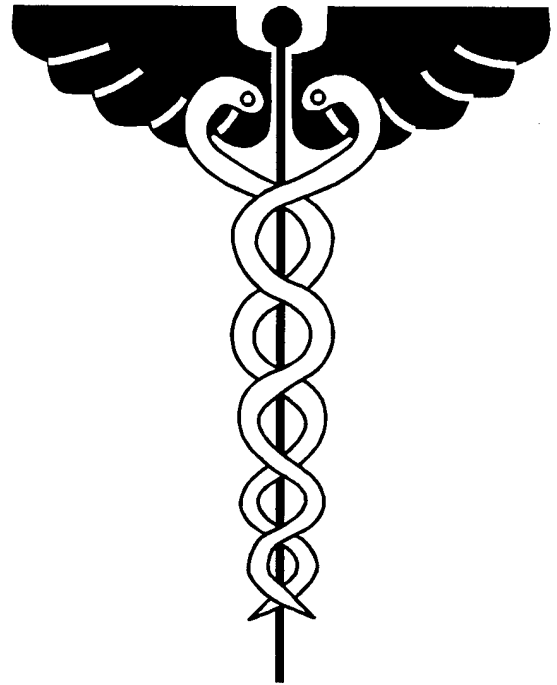
Appendix 9: Draft Health Information Plan

DRAFT

Volume

1

BAYNE-JONES ARMY COMMUNITY HOSPITAL
Automation Support Branch



HEALTH
INFORMATION PLAN

AUTOMATION SUPPORT BRANCH

Health Information Plan

CPT Mark A. Eckman
Administrative Resident
Phone 318.531.3111 • Fax 318.531.3050
DSN 462.3111

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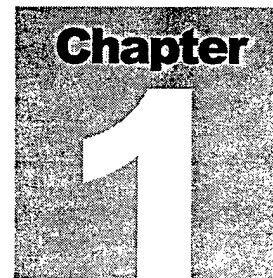
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Introduction

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

- Purpose
- Customizing this guide
- Management of Information Function
- Hospital Vision and Mission Statements
- Automation Support Branch Vision and Mission Statements
- Hospital Strategic Plan
- Executive Summary
- Graduate Management Project

Purpose

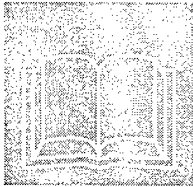
This Information Management Guide is provided to help the staff of Bayne-Jones Army Community Hospital evaluate, plan and implement information management processes to meet both internal and external needs. Through continuous improvements in the use of information, Bayne-Jones Army Community Hospital strives to "Provide the Best" possible care and services to its customers.

Customizing This Guide

ICON KEY

	User Information
	Manager Guides
	Automation Support

This document is designed for use by both manager and user alike. The icon key to the left will help you quickly identify which sections interest you. Read at least the *User Information* sections; there are some forms you must complete and return to the Automation Support Branch. This document is designed to have multiple uses. It can be used as an individual reference, as a department planning guide or as the hospital's consolidated health information plan.



Users are encouraged to make a copy of this, keep it near your desk and add to it as you see fit. Information like new policies, software cheat sheets, and helpful hints from the Automation branch will be distributed down to the users for inclusion into your individual guide. As needed, information you add to your guide will be passed up for inclusion into the hospital's information plan. The intent of this guide is to provide the user the tools to effectively manage information as well as provide the hospital the means to effectively plan for the needs of us all. This document is the repository of that information. Individual users are encouraged to use this document as a quick reference for all notes on information management. Periodically, users will be asked to submit any suggestions you may have for improving the guide and the system. At that time, go through this guide and submit any additions you may have made and find useful. There is also a form available for any other suggestions you may have that can be submitted at anytime.

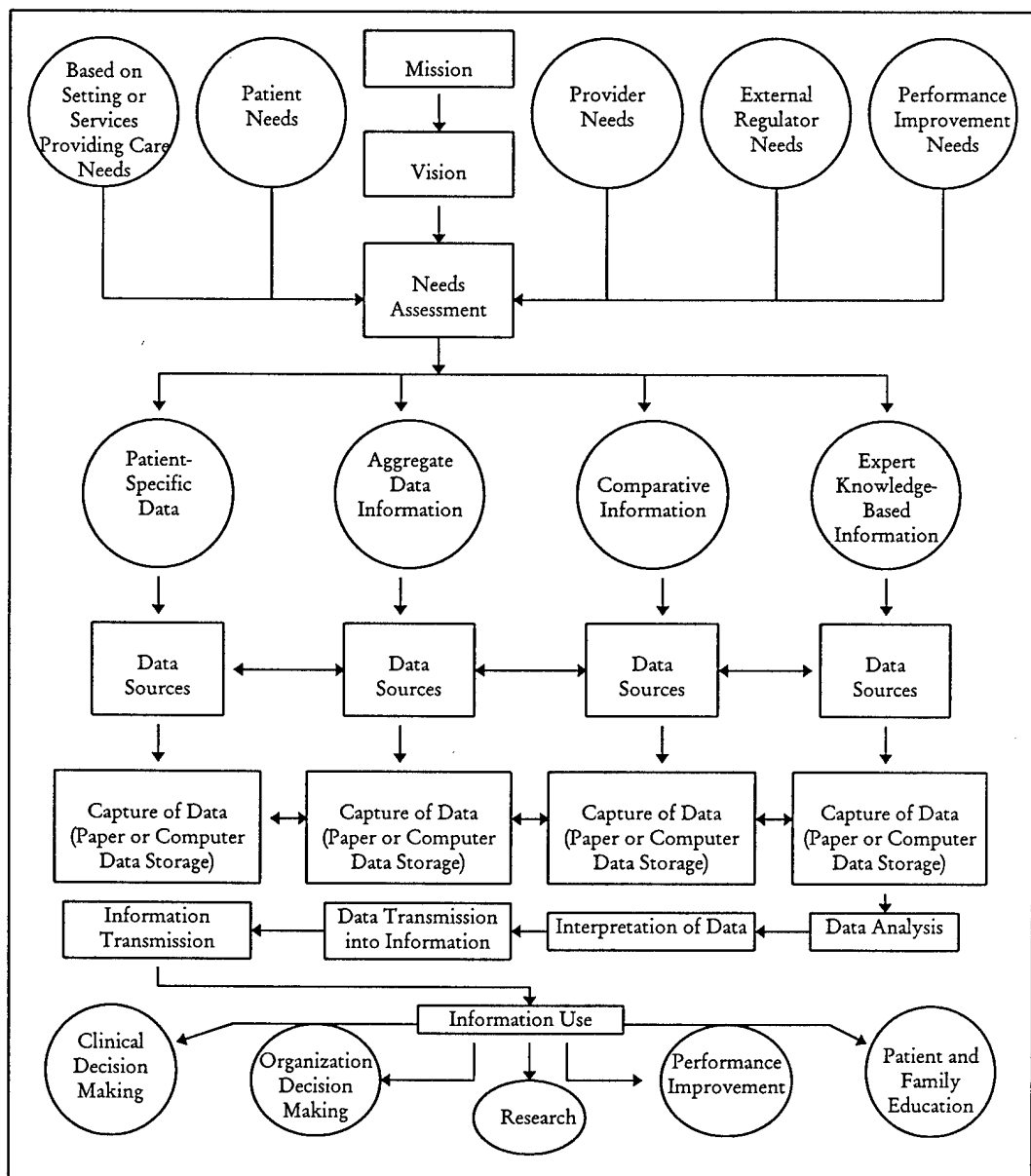


Managers are encouraged to use this guide as a departmental policy for the management of information. Use the survey tools included to develop a flow chart of the information through your department and identify who are the primary handlers. Use this guide as a reference to develop your own policies on information management. Create training records on your staff and maintain them in this guide for your reference. As more training becomes available, refer back to this to help you determine who needs what training. Use this guide to develop work requirements for the Automation Support Branch. Finally, keep this guide centrally available for your department to use as a means to share new information about the hospital's growing automation systems.

HEALTH INFORMATION PLAN

Automation Support Branch is the keeper of the health information plan. This plan is based upon the hospital's vision, mission and strategic plan but is built with the information gained from the users and managers of information within the hospital. Data gathered using this plan helps determine the needs of users and customers. The hospital's information management team examines those needs, develops the plan and passes down the information products created. This guide is created to help in that endeavor. Using this guide, the customers relate what their needs are and the Automation Support Branch responds by developing information products to meet those needs.

Management of Information Function as proposed by JCAHO:





Hospital Vision and Mission Statements

**ELEMENTS OF
MISSION
STATEMENT:**

1. Be ready to "conserve the fighting strength" during war and peace. PROFIS Training; Integration with 115th Field Hospital; EFMB; and Patient Care--all support READINESS.
2. Provide the best possible care to Active Duty Soldiers and their family members: Key features are **quality, access, and cost** (in that order).
3. Maximize access of AD/AD Family Members to health care --if they can't get in, they can't receive our high quality care.
4. Maintain access to care by retirees and their family members to the maximum possible extent--they deserve our best efforts due to their dedicated service to our nation.
5. Support medical operations at JRTC and elsewhere to maximize both soldier readiness and medical preparedness.

BOTTOM LINE:

- ** Soldiers we serve, units we serve are medically prepared to go to war.
- ** Our MEDDAC soldiers are prepared to go to war with their PROFIS or other unit and provide high quality medical care in the field.
- ** We meet the medical needs of our beneficiaries, and if possible, their individual perceived needs, for medical care.

VISION:

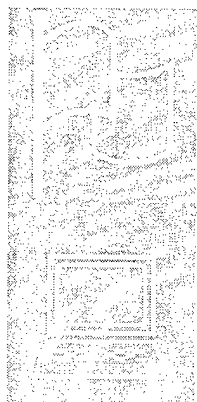
- * WE PROVIDE THE BEST: Quality healthcare for our soldiers, families, and retirees.
- * WE PROVIDE THE BEST: In developing innovative methods to meet downsizing requirements while simultaneously meeting the medical care needs of its beneficiaries.
- * WE PROVIDE THE BEST: In maximizing implementation of TRICARE to meet both beneficiary and staff needs.
- * WE PROVIDE THE BEST: Army combat readiness for medical assets, for Fort Polk units, and for JRTC training.
- * WE PROVIDE THE BEST: Mutual support to make the BJACH assignment an excellent personal, family, and professional experience.

MEDDAC IMPERATIVES:

- We are polite to our customers at all times.
- We are considerate of our customers' individual needs and treat them as we would like to be treated.
- We are compassionate in our application of bureaucratic rules.
- As professionals, we are proud of what we do and how we do it.
- We continuously strive to improve our own performance, that of our section/service, department, and the hospital.
- We take ownership of our area and we meet mission requirements by being innovative and adaptable.
- If current MEDDAC policy hinders us or no longer makes sense, we help change it.
- We take care of each other.

SOUNDBOARD FOR DECISIONS:

- Does it assist the patient in receiving medical care?
- Does it assist the staff in providing medical care?
- Is it how I would like myself/my family to be treated?
- Does it enhance our ability to meet mission accomplishment?
- Does it make work more efficient or more enjoyable?

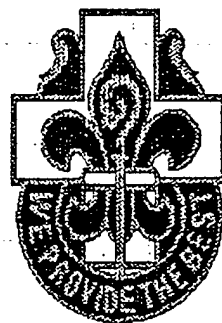


Automation Support Branch Vision and Mission Statements



Hospital Strategic Plan

USAMEDDAC
FORT POLK, LOUISIANA



STRATEGIC PLAN

**The race for quality
has no finish line!**



The Race for Quality has no Finish Line!

Foreword

I feel confident that the FY 1996 Strategic Planning Conference is the catalyst to mold Bayne-Jones Army Community Hospital into a streamlined, customer-focused, and strategically aligned facility. Our commitment is readiness and sustainment of the fighting force. We strive to ensure the delivery of excellent health care services through technical and military training and health promotion and wellness. Through the implementation of the objectives identified within this Strategic Plan we will continue to be an organization where the finest health care professionals together with the most highly trained and motivated leaders, provide compassionate health care services to all our beneficiaries.

JOHN R. BARRETT
COL, MC
Commanding

STRATEGIC PLANNING CONFERENCE

ACTION AGENCY TIME TABLE

HEALTH SERVICES

OBJECTIVE:

A. ACCESS

The mission is to provide timely access to health care in a manner conducive to customer needs. The vision is to establish clinic times of maximum benefit for our patients. Through the accomplishment of the items listed below we can evaluate areas to reengineer in order to improve the patient's ability to access the direct health care system. Goals include decreasing no-show rates, patient complaints, and non-urgent ER visits and increasing patient satisfaction and access to medical care.

- (1) Develop Customer Survey. Purpose: identify times and other issues to assist patients in accessing medical care. Develop a plan to realign clinic appointment times based on survey results. *(CSD-UM)*
TIME LINE: 30 days
- (2) Administer survey to patient population utilizing all available avenues to reach beneficiaries, i.e., PX, clinic waiting areas, etc. *(CSD-MANAGED CARE)*
TIME LINE: 60 days
- (3) Analyze Data. *(INTERNAL AUDIT)*
TIME LINE: 15 days
- (4) Develop Plan. Present the analysis to the Clinical and Administrative Chiefs during the Joint Clinical Staff meeting. Recommend conducting a pilot study prior to implementation of the plan. *(CSD, CLINICAL DEPARTMENT CHIEFS)*
TIME LINE: 30 days
- (5) Execute Plan. Present the plan to the Executive Council for approval--implement. *(EXECUTIVE COUNCIL, CLINICAL CHIEFS)*.
TIME LINE: Implement immediately following approval

- (6) Follow up. Compare second iteration of survey against benchmarks established from the first survey, i.e., no-show rates, non-urgent ER visits and patient complaints. (CSD, CLINICAL DEPARTMENT CHIEFS)
TIME LINE: 90 days after implementation

2B. MARKETING: The Process of Providing WANT Satisfaction

Marketing is not just advertising or selling. It includes determining what consumers want through analysis. Develop a marketing plan to increase and optimize marketing efforts. Include in the marketing plan: 1) Advertising--use of local media, newsletters, retiree open house, family support groups, and TRICARE briefings and 2) Marketing--demand analysis. (EXECUTIVE COUNCIL)

TIME LINE: Determined by Commander. Suggest discussion of this topic at next Executive Committee meeting.

C. EDUCATION

Provide information/education so patients understand that "no appointment does not mean no access to health care." Recommend the Education Division develop a formal education plan for the hospital. This plan would have both an internal and external focus. The internal component focuses on the education aspects of all BJACH employees. The external component focuses on the customers (both patients and units) of BJACH. Establish formal coordination between the Education Division, Clinical Departments and Marketing. Education avenues include: closed circuit television to educate patients in waiting rooms; placing health care handbooks in clinical areas. (EXECUTIVE COUNCIL, C, EDUCATION DIVISION)

TIME LINE: Determined by Executive Council and Chief Education Division. Suggest initial plan for educational efforts be briefed to the Executive Committee at next Executive Council meeting.

D. QUALITY

Increase the use of the Functional Area Action Teams. Continue current quality improvement efforts. Increase use and dissemination of quantitative information related to quality. (CSD, DCA, QI COORDINATOR)

TIME LINE: Brief Executive committee on realignment of FAAT at next executive committee meeting. See next item for quantitative data.

E. INFORMATION REQUIREMENTS AND MONITORING

Develop a management information system that correlates data gathered into a usable format for managers/leaders at all levels. This issue is included to supplement the work completed by the Information Management Strategic Planning workgroup. The need for timely and usable information is paramount to the effective planning in increasing access. Recommend that assets and time be devoted to this area. (*EXECUTIVE COUNCIL, CSD, LOG*)

(1) Specific information needs:

- a. Ad Hoc reports on patient visits, Utilization Management, Monthly workload reports.
- b. Ad Hoc on patient use of Health Care Information Line. Managed Care Branch.
- c. Local demographics.

TIME LINE: This action is currently tracked on the Executive Committee Log

READINESS

OBJECTIVE:

A. EMERGENCY PREPAREDNESS PLAN (EPP)

Finalize the hospital EPP. Training events will include mass casualty (MASCAL) exercises, alert/recall procedures, and mock code drills. (*PTMS, DOS, CED*)

TIME LINE: 3rd Qtr FY 96

B. PROFESSIONAL OFFICER FILLER SYSTEM (PROFIS)

Establish a viable PROFIS training program to maintain a C-1 rating for training. Training requirements are based on MEDCOM regulation 350-4. PROFIS personnel will receive training in deployable medical systems (DEPMEDS), weapons qualification/familiarization, common task training (CTT), nuclear, biological and chemical (NBC) task, and army physical fitness test (APFT). (*PTMS in coordination with the 115th Field Hospital {DEPMEDS}, Medical Company*)

TIME LINE: 2nd QTR FY 96 (Ongoing)

C. OFFICER PROFESSIONAL DEVELOPMENT (OPD) PROGRAM

Develop an OPD program. The goal of the program is to enhance the knowledge level and leadership skills of all officers in the command. The program focuses on improving leader communication skills, increasing understanding of key military issues, and providing guidance on issues affecting military careers. (*COMMANDER, PTMS*)

TIME LINE: 3rd QTR FY 96

D. SOLDIER READINESS PROCESSING (SRP)

Ensure deployable personnel meet the SRP requirements in accordance with AR 600-8-101. (*PTMS, DON, Nursing Division 1*)

TIME LINE: 4th QTR FY 96 (ongoing)

E. JOINT READINESS TRAINING CENTER (JRTC) OBSERVER/CONTROLLER O/C) AUGMENTEE PROGRAM

Support the JRTC O/C Augmentee program. The program provides an opportunity for military personnel to learn about the combat health support system in the field. (*JRTC SURGEON*)

TIME LINE: 3rd QTR FY 96 (ongoing)

F. STAFF CERTIFICATION

Ensure that required staff are certified in Basic Life Support (BLS), Advance Cardiac Life Support (ACLS), Pediatric Advance Life Support (PALS), and Neonatal Resuscitation Program (NRP). (*CED*)

TIME LINE: 2d QTR FY (ongoing)

G. MILITARY ACTIVITY DAY

Establish a bi-monthly program for training of military unique curriculum. The program will be designed to satisfy the needs of the command and enhance the development of officers and noncommissioned officers. Topics will be based on command training guidance, and "Go to War" mission. (*PTMS*)

TIME LINE: 4th QTR FY 96

RESOURCES

OBJECTIVE

A. RESOURCE SHARING POTENTIAL

Assess what areas are under utilized and areas where additional help could be gained from FHP. Coordinate training for Hospital staff on Resource Sharing and Resource Support Agreements. Training conducted by Lead Agent and Foundation Health staff. (*RMD, FHP, DEPT POCs, CSD*)

TIME LINE: FY 97

B. EVALUATE SPECIAL PROGRAMS FOR BENEFITS VERSUS COSTS

- (1) Explore the possibility of eliminating one position associated with the Exceptional Family Member Program. EFMP at BJACH is essentially a screening process. Determine if this process can be accomplished by the physician with no decrement in services. Realign the employee currently performing administrative EFMP duties to another area within MEDDAC. (*PEDS, RMD*)
TIME LINE: 3-6 Months
- (2) Evaluate the potential for curtailing the MEDDAC ADAPCP program. Review what other facilities within the HSSA are doing to curtail ADAPCP. (*DOP*)
TIME LINE: 3-6 Months
- (3) Determine cost effectiveness of the Medical Home Benefits Program. TriCare Prime beneficiaries are eligible for some of the same benefits that the MEDDAC provides through this program. (*RMD, CSD, SWS, LOG*)
TIME LINE: FY 97
- (4) Establish consolidated Labor, Delivery, Postpartum and Recovery Ward (LDRP) in lieu of maintaining separate and distinct wards. Determine potential for improved patient care, manpower savings. (*FMED, DON*)
TIME LINE: 12 Months
- (5) Curtail Admission and Disposition after hours staffing. Study impacts of reengineering A & D and make recommendation to Executive Committee. (*PAD, RMD*)
TIME LINE: 3 Months

C. STREAMLINE PERSONNEL MANAGEMENT

Steps include training supervisors in MER issues and Labor Relations, rewriting job descriptions, advance recruitment, and internal automation. (*RMD Manpower/Human Resource Branch*)

TIME LINE: 1 - 2 YEARS (CPO Regionalization should be complete within 1 ½ years. Continuous process of educating new supervisors.)

D. ENSURE CONTINUING EDUCATIONAL OPPORTUNITIES FOR ALL HOSPITAL STAFF

(*CED, PTMS [new Hospital Education Division]*)

TIME LINE: 6 MONTHS (after establishment of HED)

E. INTERNAL AND EXTERNAL MARKETING

Revitalize MEDDAC Orientation with positive promotional material and information concerning Ft. Polk and surrounding community. Educate employees within the MEDDAC about being a marketing advocate for the hospital. (*PAO, COMMANDER*)

TIME LINE: 6 Months

F. VALIDATION OF MEETINGS AND COMMITTEES

Concern exists within the hospital pertaining to the relevance and purpose of many of the meetings that are conducted on a routine basis. Validate purpose of meeting/committee and strive to ensure meeting productivity (TQM Process). (*QI COORDINATOR, DCA EXECUTIVE COMMITTEE*)

TIME LINE: 60 days

G. ESTABLISH PERFORMANCE INDICATORS

(1) Identify performance indicators/clinical pathways that allow the staff to monitor outliers in practice patterns. (*QI COORDINATOR*)

TIME LINE: 6-12 Months

- (2) Provide information and education to all levels of the hospital responsible for performing, identifying, capturing, and reporting workload. Determine most critical elements of workload production to monitor and improve ease and accuracy of reporting. (*RMD, INTERNAL AUDIT, CHCS SMEs, INTERNAL AUDIT*)
TIME LINE: 6 Months

FACILITIES

OBJECTIVE:

Long-Term Goals

A. SPACE UTILIZATION

Develop new space utilization form to streamline paperwork. Perform space management per DOD guideline for all new MEDDAC projects as they are designed for efficient space utilization. (*FMED, LOG, RMD*)
TIME LINE: Initiate 3rd Qtr, ongoing

B. PROJECTS

Develop an external tracking system for hospital staff to keep high visibility items on the project list. Continue to request additional funds from HSSA and MEDCOM. Continue to meet standard requirements, i.e., JCAHO, OSHA, etc. (*FMED*)
TIME LINE: Ongoing, update quarterly

SHORT-TERM GOALS

A. VIDEO TELECONFERENCE (VTC)

Develop multi-disciplinary task force to design the VTC area. (*EXECUTIVE COMMITTEE, FMED, INFORMATION MANAGEMENT WORKING GROUP*)
TIME LINE: 3-6 months

B. PATIENT ACCESS/VISIBILITY

Ensure all medical facilities are readily accessible to patients and easily identifiable on the Fort Polk installation. (*SAFETY OFFICE, FMED*)
TIME LINE: 12 months

AUTOMATION/COMMUNICATIONS

OBJECTIVE:

A. IMPLEMENT AN AUTOMATED HELP DESK

- (1) Establish an automated help desk for hospital customers to respond to inquiries. (*LOG, RMD, EXECUTIVE COMMITTEE*)
TIME LINE: 31 Jul 96
- (2) Evaluate Help Desk Software (*LOG*)
TIME LINE: 15 May 96
- (3) Implement Help Desk Software (*LOG*)
TIME LINE: 31 Jun 96
- (4) Obtain Personnel for Levels I, II and III Support Service. (*LOG, RMD, EXECUTIVE COMMITTEE*)
TIME LINE: Jul 96

B. PROVIDE GREATER ACCESS TO THE OFFICE AUTOMATION LOCAL AREA NETWORK

Provide wider access for hospital staff to the Local Area Network using contractors and government staff. (*LOG, RMD, PERS DIV, EXECUTIVE COMMITTEE*)
TIME LINE: Jan 97

C. ESTABLISH/DETERMINE SUPPORTABLE SOFTWARE REQUIREMENTS FOR THE MEDDAC

- (1) Define user friendly software for the MEDDAC. (*INFORMATION MANAGEMENT WORKING GROUP {IMWG}*)
TIME LINE: FY96 thru FY97

- (2) Coordinate software demonstration to the IMWG (*IMWG*)
TIME LINE: 1 May 96
- (3) Place IMWG on OA LAN (*IMWG*)
TIME LINE: 1 May 96
- (4) Provide demonstration to Dept/Div/Sec in MEDDAC (*IMWG*)
TIME LINE Jul 96
- (5) Assess software requirements for the MEDDAC. (*IMWG*)
TIME LINE: Oct 96

D. MARKET THE INFORMATION SYSTEM SUCCESS STORIES

Two articles per quarter submitted to the PAO for inclusion in the post paper. (*LOG, PAO*)
TIME LINE: 3rd QTR FY96

E. EXPAND THE NETWORK INFRASTRUCTURE

- (1) Site Approval (*LOG, GPHSSA*)
TIME LINE: 1 May 96
- (2) Requirements Analysis (*LOG, GPHSSA*)
TIME LINE: 1 Jun 96
- (3) Re-engineer LAN (*LOG, GPHSSA*)
TIME LINE: 15 Sep 96

F. ESTABLISH A TELEPRESENCE (INFO MEDICINE) CAPABILITY

Provide a centralized point of entry for Info Medicine that includes teleconsulting radiology, pathology and conference capability evolving into a desktop/area proliferation. (*EXECUTIVE COMMITTEE, FMED, LOG, TRICARE, TELEMEDICINE, BAMC TELEMEDICINE OFFICE*)

TIME LINE: Teleconsulting for Target Subspecialties	April 1996
Teleconference	April 1996
Radiology/Pathology	4th Quarter 1996
Desktop/Specialty Proliferation	4th Quarter 1997

- G. Obtain capability to conduct trend analysis and projections. (*FUNCTIONAL AREAS*)
TIME LINE: On going.
- H. Coordinate/Provide training for user applications. Hire/contract personnel to train staff on various software applications. (*EXECUTIVE COMMITTEE, LOG, RMD*)
TIMELINE: 31 Aug 96



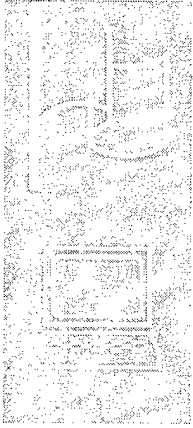
Executive Summary

The health information plan is a process of evaluating the information needs of the both internal and external customers, and providing for those needs. This document is a consolidation of the data and information needed to make effective, efficient decisions about the hospital's information systems. This document is part of the planning process.

There are three versions of this plan. The first and smallest is the *Information Management Guide*. It is meant for use by individuals. The second volume is the manager's *Departmental Information Policies*. It is designed to be used as a department's policies on the management of information. The third and largest volume is the *Health Information Plan* which is the hospital's consolidated guide on information management and planning resource. Data and information from each version is passed up and down to enhance the needs assessment process.

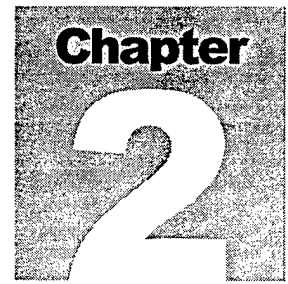
The implementation of the health information plan is as follows:

1. Review and complete this initial plan.
2. Develop and distribute the "Information Management Guide" and the Department Information Management Policy" based on this plan.
3. Conduct a Needs Assessment by executing the Hospital Information Management Survey (see Chapter 3)
4. Develop strategic plans based on all the information gathered and present them to the executive committee for approval.
5. Execute.



Format Development

The development of this health information plan was the subject of a six month study conducted by CPT Mark A. Eckman., Administrative Resident. The text of his study is included in this guide as a reference for how this plan was created.



Historical Review

Contents:

- Hospital Overview
- Descriptions of Current Information Systems
- Automation Support Branch Organization & Points of Contact
- Historical Record of System Upgrades
- Lessons Learned



Hospital Overview

Bayne-Jones Army Community Hospital is licensed as a 169 bed tertiary care facility.

It serves approximately:

- 10,000 active duty soldiers
- 13,000 family members
- 30,000 retirees and their family members

Average daily inpatients =

Average daily outpatient visits =

Number of soldiers assigned =

Number of civilian employees =

Descriptions of Current Information Systems

Table 1: BJACH Information Systems (1LT Morton, 1996)

OA LAN	Office Automation Local Area Network	On-site
OHMIS	Occupational Health Management Information System	On-site
MHCMIS	Military Health Care Management Information System	On-site
CHCS	Composite Health Care System	On-site
NMIS	Nutrition Management Information System	On-site
TPOCS	Third Party Outpatient Collection System	On-site
TAMMIS	Theater Army Medical Management Information System	On-site
UCAPERS	Uniform Chart of Accounts and Personnel	On-site
MEPRS	Medical Expense & Performance Reporting System	On-site
DWRS	Dental Workload Reporting System	On-site
DBSS	Defense Blood Support System	On-site
DDN	Defense Data Network	On-site
MODS	Medical Occupation Data System	On-site
DEERS	Defense Enrollment Eligibility System	On-site
MASS	Medical Analysis Support System	On-site
dCAS	Defense Commitment Accounting System	On-site
PASBA2	Patient Administrative System & BioStatistical Activities	On-site
Tele-Pathology		On-site
VTC	Video Teleconferencing	On-site
ADS	Ambulatory Data System	On-site
TeleMedicine		On-site
DMLSS FCS	Defense Medical Logistics Support System	On-site
SAACONS	Standard Army Acquisition Control System	On-site
TeleRadiology		On-site
IFICS	Integrated Financial Control System	Jun 96
DMLSS FMED	Facilities Management Module	Jun 96
AIMS	Automated Information Management System	Jun 96
DMLSS	AMEDDPAS Module	Sep 96
DHMRS	Defense Medical Human Resource System	Jan 97
DDSS	Defense Dental Support System	Jan 97
CEIS	Corporate Executive Information System	FY 97

Automation Support Branch Organization & Points of Contact

Chief Automation Support Branch	531-3112
NCOIC	531-xxxx
Systems Analysts	531-
Automation Support Branch Secretary	531-
Information Security Officer	531-

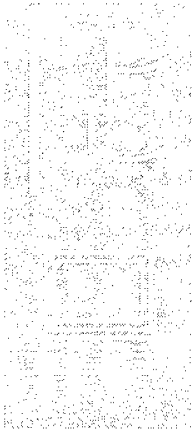
Customer Support

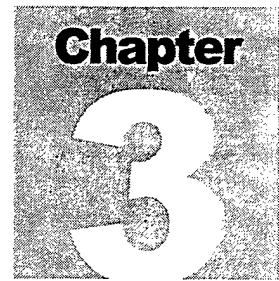
Hardware Problems	531-
LAN Problems.....	531-
Office Software Problems	531-
CHCS/ADS Problems	531-
General Information	531-
Telephone/Fax	531-
Telemedicine/Video TeleConference Problems.....	531-
Automation Training Requests	531-

Historical Record of System Upgrades

DATES	SYSTEM ACTIONS UPGRADES	REMARKS
Jan - Jul 1995	Composite Health Care System (CHCS) Implemented	(lessons learned pg ##)
April 1996	Ambulatory Data System (ADS) installed	Crashed CHCS (lessons learned pg ##)

Lessons Learned

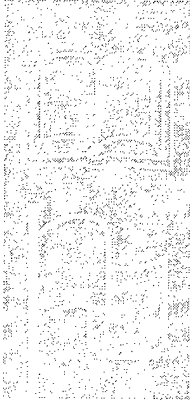




Information Process Improvement

Contents:

- Information Defined
- Nine Basic Steps to an Information Process
- Needs Assessment Survey
 1. Individual Surveys
 2. Departmental Processes



Information Defined

A clarification of the difference between data and information, although seemingly basic in nature, is important for a hospital to determine. Data is simply a collection of facts in the form of numbers or words. "Data is the raw material from which information can be generated (Worthy & DiSalvio, 1995)." Information is data that can effectively be used for a purpose. Information has several distinguishing characteristics that can be measured - accuracy, timeliness, completeness, conciseness, and relevancy (Worthy & DiSalvio, 1995). Too often, hospital executives are overloaded with data but are starved for useful information. This is often referred to as the D.R.I.P. syndrome: data-rich but information poor (Reed, 1995). Awareness of this is the first step to refining a health information system. "An information system is a network of steps taken to collect and transform data into information. Many so-called 'information systems' actually are data systems - they collect and transform data into more data (Worthey and DiSalvio, 1995)."



Nine Basic Steps to an Information Process

Worthey and DiSalvio propose that there are nine basic steps in the network that forms an information system:

1. Classifying: Identifying information needs and the data required to fill the need.
2. Collecting: The process used to gather the data.
3. Recording: The actual recording of data.
4. Sorting: Organizing the data to facilitate processing.
5. Calculating: Summarizing and analyzing the data.
6. Storing: Media in which data and information is held.
7. Retrieving: Process of finding and retrieving the information when needed.
8. Reproducing: Method of duplicating the information for multiple use.
9. Communicating: Delivering the output to those who need it.



Hospital Information Management Survey

Instructions:

1. Distribute the Individual Use Survey to all computer users in the hospital.
2. Conduct Department Interview Surveys.
3. Collect and analyze data to decide information needs.
4. Develop mission priorities based on needs assessment.
5. Integrated missions into strategic plan.



Individual Use Survey

Hospital Information Management Survey

INTRODUCTION

This survey is part of an information management needs assessment. Its purpose to determine how much staff members use the computer, what programs they use and assign numerical values to that use. By doing so, managers and decision makers can determine who are the primary users of the hospital's computers and what they are using them for. This can help determine priorities for distributing limited resources, provide managers with information about use patterns, and identify areas of high use. This survey was developed for use hospital wide as part of the health information planning process but can also be used at the department level. Managers may wish to use this survey to assist in planning for their own information needs.

INDIVIDUAL USE SURVEY

The individual use survey that is attached is for use in the hospital wide needs assessment. Its purpose is to capture individual computer use at a departmental level. Managers are asked to give a copy of the survey to any BJACH staff member who uses a computer to perform their assigned duties. After collecting up the surveys, managers are encouraged to review the results before passing the data

Routing Slip

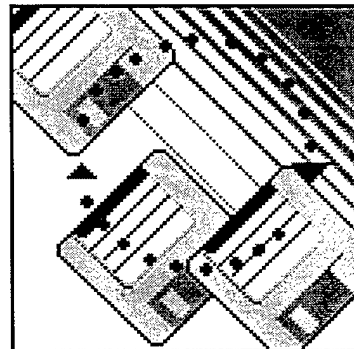
TO:

1. Division
& Section
Chiefs

☐ Action ☐ Note

&Rtn

FROM:



on to the Automation Support Branch. A simple total of scores will provide some insight into who are the high end users and how information is created and handled within in your department. This information can be helpful in planning for new systems or improving the ones you have.

DEPARTMENT INTERVIEW SURVEY

The second part to the needs assessment is the department interview survey. You will find the forms in the Health Information Plan, Chapter 3. Managers are asked to use the forms to flow chart each information process that occurs in the department. The process can be very revealing as ways to improve the flow of information become evident. Keep the flow charts in your department's information management guide and send a copy to the automation support branch for review. They will also look for ways to help you manage information. Call if you need any help.

Hospital Information Management Survey: Individual Computer Use

NAME: _____

SECTION: _____

JOB TITLE: _____

Instructions: Please rate how often you use the following software applications by putting a number in the corresponding box. Use the scale provide to determine your rating for each application. If you do not have access to specific type of software application, put a 0 in the box. Please fill in all boxes.

Average Usage Rating Scale	
Not used or rarely used.....	0
1-3 times a year.....	1
1-3 times a quarter.....	2
1-4 times a month.....	3
1-4 times a week.....	4
Once a day.....	5
2-5 times a day.....	6
6-9 times a day.....	7
10 or more times a day.....	9

Word Processing Use:

(i.e.: Word Perfect, MS Word)

- Complexity of documents:

☐ Simple (i.e.: memos)

☐ Moderate (i.e.: reports)

☐ Complex (i.e.: SOPs,)

Database use:

(i.e.: Dbase IV, Paradox)

Spreadsheet use:

(i.e.: Lotus 123, MS Excel)

- Complexity

☐ Simple (i.e.: simple graphs)

☐ Moderate (i.e.: statistical reports)

☐ Complex (i.e.: financial models)

Graphic program use:

(i.e.: Harvard Graphics, Power Point)

Electronic Forms use:

(i.e.:Forms Flow, AMEDD Forms, PerForm Fill)

CHCS (except Mail-man) use:

(i.e.: Rx order entry, Appointment templates)

CHCS Mail-man Use:

DDN E-mail use:

(also called MMDF-II)

CC Mail use:

Others: please list below

(i.e.: NMIS, TPOCS, TAMMIS, etc.)

Fax use:

Location of fax: _____



Department Interview Survey

Hospital Information Management Survey

DEMOGRAPHICS

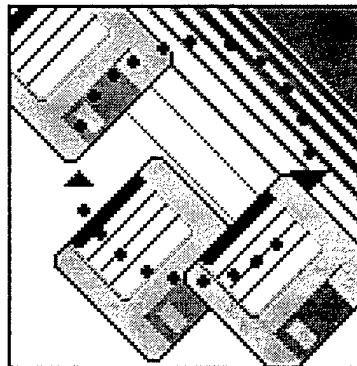
Department / Functional Area:

Contact Person:

(Name, title & extension)

General Mission of the Department:

Special Security Requirements:



GENERAL DEPT. STRUCTURE

FORMS / REPORTS

Instructions: List the name of forms or reports frequently used and rate how often they are used using the rating scale. Attach a copy of the form to help identify it if needed.

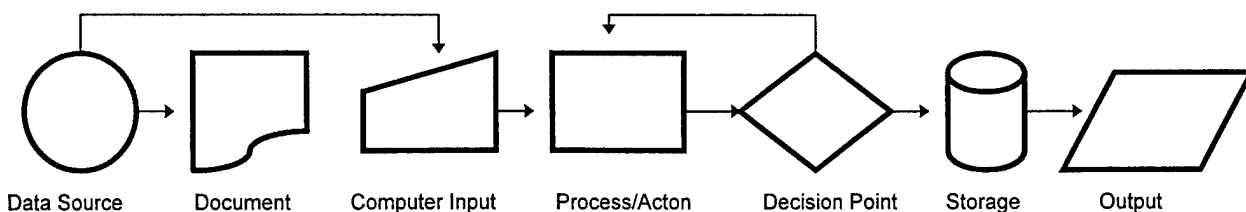
Average Use Rating Scale

Not used or rarely used.....	0
1-3 times a year.....	1
1-3 times a quarter.....	2
1-4 times a month.....	3
1-4 times a week.....	4
Once a day.....	5
2-5 times a day.....	6
6-9 times a day.....	7
10 or more times a day.....	9

INFORMATION FLOW CHART

TITLE: _____

Instructions: Start with a form or a task and create a flow chart of each step of the events that occur from the creation of data to the final communication of the information. Use the flow chart symbols given at the bottom of the sheet. Create a different form for each information process.



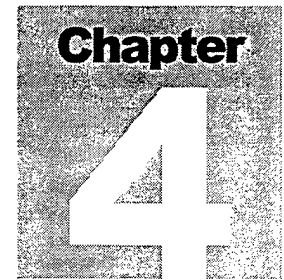
INFORMATION NEEDS

Instructions: List any information needs you or the department may have that could improve the mission or patient care.

RECOMMENDATIONS:

Instructions: List any general recommendations for improving information management. Specific recommendations can be written directly on the flow chart form. Sign and date.

Recommendations made by:



Security and Confidentiality

Contents:

- Categories of Security
- User Responsibilities
- Regulatory Requirements
- Local Area Network Security
- Security Checklists

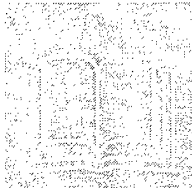


Categories of Security

JCAHO standards require that security and confidentiality of data and information be maintained, especially when it concerns patient information (JCAHO, 1996). JCAHO does however recognize that there is a tradeoff between security and accessibility. The more secure information is, the less accessible it is, and visa versa. JCAHO standards do require that a hospital recognize the trade off and address it in a hospital policy. To develop that policy, an understanding of what types of security problems there are is prudent. Security problems can be broken down into five categories (Worthley and DiSalvio, 1995).

The first type of security problem involves safekeeping the computer equipment from physical damage or theft. If the equipment is damaged or lost, the information contained within could also be lost. The second category, similar to the first, involves simple loss of data. The computer need not be destroyed or stolen for the information to be lost. It is probably more likely to lost by an unknowing user deleting a file. Sometimes unsuspected actions, like running a vacuum cleaner over a back-up tape, can be the cause of lost data. Vacuum cleaners can sometimes contain very powerful magnets in them. Frequent backups of data and information must be a regimented part of the information process. Storage of backup information must also be considered. If a computer room is destroyed by fire, the backup tapes can do no good if they too were stored in the computer room (Worthley and DiSalvio, 1995). Off site storage of information is recommended by JCAHO as part of a disaster recovery plan. Other emergency provisions for protection of data and information should also be included in this section of the health information plan (JCAHO,1996).

The third category of security involves manipulation of the data. Data can be changed, erased, or destroyed with little evidence of tampering by knowledgeable employees (Worthley and DiSalvio, 1995). Their purpose can be as innocent as mistakenly being in the wrong file or as deceitful as deleting a friend's medical records containing evidence of his or her drug abuse . Unauthorized access into a system is another category of security violations. These intrusions could be by outside personnel, sometimes referred to as 'hackers,' or by employees. It involves using various methods to defeat system security measures. The final category of security violations is the misuse of equipment or data for personal gain. Using E-mail for personal gain, copying patient data for marketing purposes, or even just playing games on hospital computers during work hours can all be considered misuse of the hospital information systems.



User Responsibilities

- 1) Protect your equipment
 - Keep food & drink away from you computer and peripheral devices.
 - Always use an approved surge protector or UPS.
 - Have Automation Support Branch conduct annual preventive maintenance checks.
 - Secure computer or at least your office when you are not present.
- 2) Protect your data and information
 - Make frequent backups
 - Use passwords in accordance with hospital policies (see page ____)
 - Use virus protection software on all foreign files, e-mail messages and internet downloads
 - Verify software compatibility before loading it
 - Protect your backup tapes & disks like you do your computer.
 - Inspect computer printouts for sensitive data before throwing them out.
- 3) Protect yourself.
 - Never give out your password to word to anyone; anyone authorized to work on your computer has supervisor access or should wait until you are present.
 - Know what you are doing; if you are unsure, call someone (see page ____)
 - Keep hand receipts for computer equipment current.



Local Area Network Security



Security Checklists

A great deal can be written about the security of Information, and Joint Commission Standards indicate this is a topic of great importance. Various systems and programs can exist that control the accessibility of information and data, and yours should be reviewed and documented in the Information Management Plan.

Key elements of a successful Information Security program are:

1. Pass codes.
2. A regular system for changing pass codes.
3. Elimination of the use of 'general' pass codes that
3. File Encryption for sensitive information.
4. Read Only or Write Only file classification.
5. Protection of Master Files and Patient Files.
6. User Logs to track file access and time of access.
7. Immediate Code deletion for employees terminated,
8. Limited access to key hardware areas and software
9. Off-site storage for daily back up tapes or discs.
10. Protection for sensitive Patient data.

SECURITY OF PERSONAL COMPUTERS

In addition to discussion of hardware and software standards for mainframe systems, the Personal Computer cannot be overlooked, as we noted in the Hardware Applications Section of this chapter.

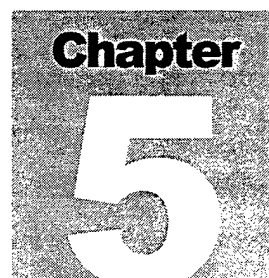
The Personal Computer plays a vital role in the storage and retrieval of

HEALTH INFORMATION PLAN

Hospital Information. In many cases, mini Limited Area Networks have been created using the PC and linked to the mainframe system used by the Hospital. In other cases, independent PC units provide a storage and manipulation base for policy and procedure manuals or other word processing documentation.

The PC world changes with incredible rapidity. Correspondingly, our Information Management Plan should address the use of the PC in the Organizational setting and outline requirements and standards each PC use and user should meet:

1. PC Hardware Standards
2. PC Preferred Software configurations
3. Preferred Operating System configurations
4. Data communications packages
5. Laptop vs. Desktop usage
6. PC linkage to the mainframe system
7. E-Mail capabilities



Utilization of Information

Contents:

- Aggregate Data Sources
- Current Hardware Platform Standards
- Current Software Standards
- Software Acquisition Procedures
- Hardware Acquisition Procedures



Aggregate Data Sources

WINN
ARMY COMMUNITY HOSPITAL
USA MEDDAC
Fort Stewart Georgia

Aggregate Data Information Guide

If you're not using aggregate data,
you're flying by the seat of your pants!



FORWARD

Are YOU using aggregate data or... are YOU flying by the seat of your pants?



But ... what IS aggregate data?

The Joint Commission defines "aggregate" as the "combination of standardized data and information." In other words, the gathering of like information from various sources is aggregating the data. The people and machines that provided this information combine to make aggregate data systems.

Access to and utilization of available information are the keys to successful operations. This guide was prepared to inform you of the aggregate data systems that are available throughout this facility. Using these systems will allow you to make informed operational decisions, identify opportunities for performance improvement, and maximize resources to provide quality patient care.

This Guide is the Product of
the

**Management of
Information
Multidisciplinary
Quality
Improvement
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Suggestions for Improvement/Comments
should be directed to: Deniece Kennemer,
Resource Management Division, 6898

QUICK PICK EXPLANATION

Refer to the facing page and review the box titles which represent your management needs.

Listed beneath each box title are acronyms (names) of some of the data sources you may select to support your management needs.

An Alphabetic Data Source Listing begins on page 4. Acronyms (where applicable) are shown first, together with the complete title, and a description of the data. The data expert (point of contact) is listed at the end of each description.

QUICK PICK DATA

PERFORMANCE IMPROVEMENT

CHCS	MEPRS
MHCMIS	PASBA2
FSS	SP
QI/RM IL	UM CM
QI/RM CM	

EQUIPMENT/SUPPLIES

AMEDDPAS
MEDCAT
TAMMIS-MEDSOP

TRAINING DATA

OMTD	HSTN EATS
NESD	REPORT

FINANCIAL

STANFINS	DCAS
MEPRS	MASS

WORKLOAD/ PRODUCTIVITY

CHCS	MHCMIS
MEPRS	PASBA2
MSR	CPS

PATIENT CARE

CHCS	CABP
MCP	MHCMIS
MEPRS	MEDLINE
DEERS	MASS
QI/RM IL	UM CM

PERSONNEL

TDA	MEPRS
MSAM	PROFIS
EDAS	WMSN
SIDPERS	

SECURITY

Determination of access to information contained in this guide lies with the functional proponent listed as the point of contact at the end of each description. This determination will be made based on:

AR 40-66, Medical Records Administration

MEDDAC Reg 190-51, Personnel and Physical Security Standards

MEDDAC Memo 380-1, Security Standards for Automatic Data Processing

Regulatory guidance for each system

ALPHABETIC DATA SOURCE LISTING

Accident/Injury Log (Manual). Record of accidents/injuries to employees both military and civilians. Identifies injuries by class, type and other elements to identify trends, casual factors and system/equipment failures. Utilized to assist in developing countermeasures, training, and related requirements. (Contact: Safety Officer, 767-6012)

ACHN Class Evaluation (Manual). Aggregated responses to questionnaires given after educational offerings asking for feedback from class participants. Used to improve future offerings. (Contact: Preventive Medicine Services, 767-5186)

ACHN Referral Surveys (Manual). Questionnaire given to the staff of WACH to ascertain their level of understanding of the role of a CHN and their level of understanding of the referral process. Responses are aggregated and used to develop inservices about Community Health Nursing. (Contact: Army Community Health Nursing, 767-5186)

ACHN Statistical Reports (Manual). Documents uneven patient load, trends, classes, and programs in local community health departments. (Contact: Army Community Health Nursing, 767-5186)

(ACPER) Army Civilian Personnel Data (Automated). A comprehensive computerized database maintained by the Directorate of Civilian Personnel (DCP) which includes a variety of demographic data on civilian employees. (Contact: Directorate of Civilian Personnel, 767-1805)

(ACTUR) Automated Central Tumor Registry (Automated). Central database for registration of cancer patients records. Data reported to MEDCOM, National Cancer Institute, and Georgia Cancer Center. Comparative data is available. (Contact: Pathology, 767-6741)

ADAPCP New Enrollment Referral Type, Monthly New Enrollments, Monthly Caseload Report (Automated). Data is collected and aggregated to justify manpower and budget requests. Data is used by MEDCOM as comparison data against all other ADAPCP's. This data is required reporting to DAMIS. (Contact: ADAPCP, 767-5258)

ADAPCP Patient Contacts (Automated). Data is used to measure productivity against the bench marking requirements assigned by MEDCOM (MSAM). (Contact: ADAPCP, 767-5258)

ADAPCP Patient Disposition (Automated). Data suggests program effectiveness, assessment skills and possible need for counselor training. This data is used by MEDCOM and DAMIS to compare effectiveness and trends between ADAPCP's. (Contact: ADAPCP, 767-5258)

ADAPCP Waiting List (Automated). Listing of patients awaiting appointments or triage. Used to insure staffing requirements and counselor management skills meet Quality Improvement standards. (Contact: ADAPCP, 767-5258)

(AMBTs) Automated Medical Board Tracking System (Automated). Provides current status of Medical Evaluation Board (MEB) or Temporary Disability Retirement List (TDRL) cases. Can sort by patient, physician, department, suspense, location, and component, etc. (Contact: Patient Affairs, 767-6893)

(AMEDDPAS) Army Medical Department Property Accountability System (Automated). Logistics system. Provides customer request processing of non-medical supply requests. Provides requisition histories on all Medical Care and Support Equipment (MEDCASE) and Capital Expense Equipment Program (CEEP) items. Provides automated property accountability records, including individual hand-receipts. Provides individual equipment life cycle maintenance histories, schedules, and expenditures. Primary source of information for developing equipment replacement strategies. Supports medical equipment, non-medical supply, military medical benefits, property accountability, and medical maintenance operations. (Contact: Systems Analyst, 767-6976).

Basic Cardiac Life Support/Advance Life Support Certification Report (Automated). Identifies providers due for renewal of BCLS/ACLS and those with expired BCLS/ACLS certification. (Contact: Credentials Coordinator, 767-6933)

Bid Price Adjustment (Automated). Managed Care System. Spreadsheet macro designed to track the dollar flow between WACH and the TRICARE Contractor. Microsoft Excel and Lotus based. Managed Care reports the flow of business and the associated dollars. Macro will produce the annual data required to support the bid price adjustment settlement. (Contact: Managed Care Division, 767-6567)

Blood Utilization Review (Automated). Statistical report which provides blood ordering practice information. Tracks blood usage by location and physician. (Contact: Pathology, 767-6741)

(CABP) Catchment Area Business Plan and Initiatives Score Cards (Automated and Manual). Managed Care System. The Business Plan is both automated, as far as the business initiatives analysis is concerned, and manual, as far as calculating input. The plan itself is a written document that explains generally the eleven

essential elements of the TRICARE program. The eleven elements outline the general scope of our plan. Score cards are automated spreadsheets that track the outcome of each initiative.
(Contact: Health System Branch, 767-6229)

(CHCS) Composite Health Care System (Automated). Integrated hospital information system which supports outpatient and inpatient administration, patient care, and ancillary services; directs physician orders to all concerned clinical and administrative services; collects data from all work centers; provides results of all patient's tests and treatments to health care professionals; and provides authorized users immediate access to shared data. Subsystems supported by CHCS: Patient Appointment Scheduling (PAS), Pharmacy (PHR), Laboratory (LAB), Radiology (RAD), Patient Administration (PAD), Medical Services Accounting (MSA), Clinical (CLN), Dietetics (DTS), and Facility Quality Assurance (FQA). (Contact: Automation Management Office, 767-6188)

Child Care Facility Inspection Reports (Manual). Reports generated by Community Health Nurses during inspections of child care facilities. Used to determine whether facility is in compliance with regulations and used as an assessment tool to determine what class offerings are needed by child care staff.
(Contact: Army Community Health Nursing, 767- 5186)

College of American Pathology Collective Data (Manual). Laboratory tests results forwarded to CAP and evaluated against a peer group. Comparative data is available.
(Contact: Lab Manager, 767-6658)

Company Information System (Automated). Data base of all assigned soldiers. Sorts information requested for company level by various categories (date of arrival , date of rank, and branch).
(Contact: Personnel Division, 767-6665)

Complaints/Compliments (Automated). Summarizes patient complaints and compliments. The report is used as a Quality Improvement indicator for clinics, departments, and the Executive Committee. (Contact: Patient Representative Office, 767-6226)

Consolidated Strength Report (Automated). Installation population report for Fort Stewart and HAAF. (Contact: Resource Management Division, 767-6550)

(CPOC) Computer Assisted Practice of Cardiology (Automated). Provides assisted interpretation of electrocardiograms (EKGs). (Contact: Radiology, 767-6726)

(CPS) Command Performance Summary (Manual). Quarterly report of aggregate performance of the organization. Used to perform review and analysis of operations. (Contact: Resource Management Division, 767-6550)

(DCAS) Defense Commitment Accounting System (Automated). Daily Obligation accounting system which allows daily access to status of organizational funds. Provides cumulative financial obligation reports. (Contact: Resource Management Division, 767-6254)

(DCPS) Defense Civilian Pay System (Manual/Automated). Time and Attendance system used to input hours worked and pay earned for civilian employees. Hours manually entered on time cards are input into computer system and compensation is generated and paid by computer system. Various reports are available.
(Contact: Resource Management Division, 767-6914)

(DDN) Defense Data Network (Automated). This network allows electronic communication with higher commands and other installations in an expedient fashion. Besides providing E-Mail

capability, it also allows files transfer, telnet to other information systems and remote logins. (Contact: Automation Management Office, 767-6188)

(DEERS) Defense Enrollment Eligibility Reporting System (Automated). Provides beneficiary eligibility data and soon will be the TRICARE Prime enrollment data base. With the implementation of CHCS, DEERS is now tied into the Managed Care and Patient Appointment Modules of CHCS. Nonavailability statement (NAS) function tracks inpatient care sent to the civilian sector. The system provides NAS information by month, category and specialty service. The NAS information is used for utilization management and tracking the CHAMPUS claims cost by episode. (Contact: Health Benefit Advisor, 767-6996)

Delinquent License Report (Automated). Identifies when licenses will or have expired. Notices are sent out 60 days prior to alert the providers of possible lapse of license. (Contact: Credentials Coordinator, 767-6933)

DOM Measurement of Access to Care (Manual). Information gathered to measure availability of care by MSAM standards. Used to aid in improving service. (Contact: Department of Medicine, 767-6594)

DOM Patient Satisfaction Survey (Manual). Questionnaires developed to inquire as to patient satisfaction within each clinic/service. Used to aid in improving service and health care delivery. (Contact: Department of Medicine, 767-6595)

DOM Performance Improvement (Manual). Reports developed to follow and document performance improvement within each service/clinic with DOM. (Contact: Department of Medicine, 767-6594)

Domestic Violence Contacts (Manual). Medical summary data used to determine staffing and treatment options. (Contact: Social Work Services, 767-6779)

DON Advance Cardiac Life Support (ACLS) Provider/Instructor Report (Automated). Identifies personnel in the department that are ACLS certified. (Contact: Nursing Education and Staff Development, 767-6252)

DON Education Committee Minutes (Manual). Documents educational endeavors and mandatory training for the department with unit level attendance and input. Statistical data included. (Contact: Nursing Education and Staff Development, 767-6252)

DON Mandatory Training Expiration Dates Report (Automated). A database of all personnel in DON arranged by unit or ward assigned, with a listing of the expiration dates of their mandatory training, to include HIV, Infection Control, Mock Code/Crash Cart Familiarization, Medication Test, and IV Certification. (Contact: Nursing Education and Staff Development, 767-6252)

DON Monthly Licensure Expiration Report (Automated). DON professional licensure expiration/renewal dates. (Contact: Nursing Education and Staff Development, 767-6252)

DON Quality Improvement Minutes (Manual). Documents trends, analysis and opportunities to improve nursing care and patient care issues. (Contact: Department of Nursing, QI Coordinator, 767-6121)

DON Quality Improvement Review (Manual). Measures and assesses performance improvement activities within DON. (Contact: Department of Nursing, QI Coordinator, 767-6121)

DON Quarterly Education Book Audit Report (Manual). Reports compliance with documentation of unit level inservices, individual

inservice records, mock code exercises, and projected inservices. (Contact: Nursing Education and Staff Development, 767-6252)

DON Quarterly Report (Automated). Reports educational TDYs to include individuals that attended, unit assigned, location, type of funding and cost. (Contact: Nursing Education and Staff Development, 767-6252)

DON Risk Management Report (Manual). Trending and analysis of patient and staff safety issues to identify opportunities for improvement. (Contact: Department of Nursing, QI Coordinator, 767-6121)

DON Standardization Committee Minutes (Manual). Documents policies after assessing current trends and practices within DON. Ensures same standards of care are provided throughout the organization. (Contact: Department of Nursing, 767-6854)

DPC Quality Improvement Minutes (Automated). Documents aggregate data and operational decision making for process improvement. (Contact: Department of Primary Care, 767-6644)

(EDAS) Enlisted Distribution Assignment System (Automated). The enlisted personnel assignment system verifies military gains and losses to MEDDAC to ensure enlisted strength is maintained at adequate levels and provides early warning of extreme change in strength projections. (Contact: Personnel Division, 767-6665)

Emergency Care and Treatment (SF 558) (Automated). Includes the name, age, sex, date, time, means of arrival, nature of complaint, diagnosis, disposition, and time of departure for each patient seen in the Emergency Medicine Service. Required reporting to proper authority is documented on this form (gunshot wounds, abuse, etc.). Aggregated daily report available. (Contact: Emergency Medicine Service, 767-6236)

Emergency Medicine Service Daily Patient Log Sheet (MEDDAC Form 750) (Automated). Statistics compiled by the Emergency Medicine Service on the number of AD, USAR, USNG, dependents of AD, retired, dependents of retired, civilian employees, and other seen in the Emergency Room. This is categorized into Army Navy, Marine, and Air Force. (Contact: Emergency Medicine Service, 767-6055)

Emergency Medicine Service Quality Improvement Physician Chart Review (Manual). A monthly Quality Improvement chart audit of contract and military physicians within the Emergency Medicine Services. (Contact: Emergency Medicine Service, 767-6905)

Emergency Medicine Service Statistics (Automated). A daily, monthly, and yearly compilation of statistics encompassing the total number of patients seen and the number who left without being seen, left against medical advice, waited over 3 hours, admitted, codes, deaths, bites, transfers, active duty, family members, pediatric patients, and Family Practice patients. (Contact: Department of Primary Care, 767-6644)

Entomological Surveillance (Manual). Provides data on arthropod and rodent activity. Determines the type of control and the effectiveness of controls in accordance with USA Center for Health Promotion and Preventive Medicine guidelines. (Contact: Environmental Health, 767-3050)

Epidemiology Information System (Automated). A statistical database which records different types of communicable diseases such as HIV and tuberculosis and provides statistical analysis of local disease trends. (Contact: Preventive Medicine Services, 767-5196)

Executive Committee Minutes (Manual). Documents decisions made/actions taken by the Command Group which is composed of the Commander, Deputy Commander for Administration, Deputy

Commander for Clinical Services, DON and the Command Sergeant Major. The committee uses aggregated and analyzed clinical and administrative data in making managerial decisions in performance improvement activities, in patient care, tracking trends, and making comparisons within this organization and others to improve performance (i.e., Command Performance Summary, Patient Administration Biostatistical Agency, Program Budget Advisory Committee Minutes, etc.). (Contact: Information Management Division, 767-6662)

Food Service Sanitation (Automated). Data on sanitary deficiencies. Identifies areas where training is necessary for food service personnel in accordance with TB MED 530. Improvements in survey processes are implemented after examination of sanitary deficiency data by Environmental Health Personnel. (Contact: Environmental Health, 767-3050)

(FSS) Fire/Safety Surveys (Manual). Written records of fire and safety surveys conducted within the facility to identify fire/safety violations/deficiencies. Utilized by management to develop local interim life safety measures, plans for improvement as well as major construction/renovation projects. A useful tool for department and section chiefs to identify areas in need of improvement within their area of responsibility as well as corrective actions required. (Contact: Safety Officer, 767-6012)

Health Risk Appraisal (Automated). A program which provides an individual health appraisal for a client, and advises how the client can improve his/her health by removing risk factors such as smoking or excessive alcohol consumption. (Contact: Preventive Medicine Services, 767-5196)

Health Risk Appraisal Breakdown Reports (Automated). Identifies trends in life style that should be addressed in classes (smoking cessation, health diet, and exercise). Used to determine

what trends are present in individual units so classes can be focused on the needs of the unit. (Contact: Army Community Health Nursing, 767-5186)

(HEARS) Hearing Evaluation Automated Register System (Automated). A database of hearing tests for military and civilian workers. (Contact: EENT, 767-6350)

(HHIMS) Health Hazard Inventory Module System (Automated). Provides demographic information on work center, unit, building and employee(s). Information is available on workplace risks and hazard severity. Outlines the personal protective equipment requirements and availability. (Contact: Industrial Hygiene, 767-5169)

(HMIS) Hazardous Material Information System (Automated). Provides retrievable information on hazardous materials by company, stock number, trade name, etc. Information can be obtained on the ingredients; their toxicity, percentages, molecular, and weight. Outlines shipment requirements (storage containers, method of shipment, and labelling). Specifies personal protective equipment for handling the materials. (Contact: Industrial Hygiene, 767-5169)

(HSTN EATS) Health & Science Television Network Electronics Academy Tracking System (Automated). Gives course listings update, personnel log certification of training, administrative and technological updates. (Contact: Information Management Division, 767-6662)

(HTAS) Hospital Telephone Appointment System (Automated). Automated attendant (AA) and automatic call distribution (ACD) system. Provides the patient population a faster and more efficient way to make an appointment. Patient selects options to make or cancel an appointment, refill prescriptions, check for lab and pregnancy results, and obtain general health-related information. (Contact: Automation Management Office, 767-6188)

Human Immunodeficiency Virus (HIV) Data Base (Automated). Clinical and demographic information collected on each patient. Utilized to research the effectiveness of various HIV education and intervention programs. (Contact: Preventive Medicine Services, 767- 5196)

Industrial Hygiene Monthly Workload Data (Automated). Statistical workload data. Used to determine productivity and trends affecting health and safety. Comparative data available. (Contact: Industrial Hygiene, 767-5169)

Infection Control Committee Minutes (Manual). Documents trend analysis, counter measures, and opportunities to improve overall infection rates and final actions taken. (Contact: Infection Control Officer, 767-6121)

Infection Control Documentation Trending Report (Manual). Provides analysis of medical record documentation compliance. Used to identify trends and opportunities to improve. (Contact: Infection Control Officer, 767-6121)

Infectious Disease Data. Tracks Center for Disease Control reportable diseases. Reports of infectious disease are aggregated with Preventive Medicine Reports. (Contact: Pathology, 767-6741)

Iowa Drug Information Service (Automated). Provides a computerized review of articles maintained in the Iowa Drug Information Data base that is cross-referenced based on the inquirers selected review criteria. (Contact: Pharmacy, 767-6040)

(LADS) Labor and Delivery System (Automated). Tracks workload management specifics for labor and delivery. (Contact: Labor and Delivery, 767-6785)

Major Enrollment Source (Automated). Data is aggregated monthly to evaluate training needs in high substance abuse areas.

Trends are transmitted to DAMIS and compared at MEDCOM level for funding studies. (Contact: ADAPCP, 767-5258)

(MASS) Medical Analysis Support System (Automated). This PC based program links with OCHAMPUS paid claims data. The data reflects the CHAMPUS Fiscal Intermediary work. These claims are the CHAMPUS costs for our catchment area. MASS provides many levels of detail on claims such as, patient name, SSN, dates of service, professional cost, institutional cost, institution identification, doctor, other health insurance payments, date of admission, diagnostic related group, International Classification of Diseases 9th Revision Clinical Modification codes, and more. MASS also provides special report writing and specific preformatted reports. This data is used to manage the CHAMPUS account for the WACH Catchment area and to provide utilization management facts. (Contact: Health System Branch, 767-6229)

(MCP) Managed Care Program Module of Composite Health Care System (Automated). This is the hospital's program to manage TRICARE Prime. It provides information on all enrolled beneficiaries, Primary Care Manager (PCM) and team assignment, eligibility status, beneficiary demographic information, and a series of utilization data reports. MCP is also used for appointing patients both inside WACH and outside in the civilian sector. (Contact: Health Systems Branch, 767-6229)

(MEDCAT) Medical Catalog (Automated). CD ROM cross referenced database of medical items to military stock numbers and part numbers, substitutes, and alternatives. Used to help identify specific items, sources of supply, and costs. (Contact: Materiel Branch, 767-6240)

Medical Information Module Data (Automated). A module of the Occupational Health Management Information System designed to collect occupational health encounter information on soldiers and civilian employees. The module is designed to also include hazard

information on the worksite and serve as a reference on specific occupational health hazards.

(Contact: Occupational Health, 767-5179)

Medical Staff Reappointment (Automated). Identifies those who are due reappointment for hospital privileges. Packets are sent to provider two months prior to reappointment date and the completed packet is present at (MSPR) Committee Meeting 30 days prior to reappointment date of expiration. Privileges are approved by Commander.

(Contact: Credentials Coordinator, 767-6933)

(MEDLINE) Medical Literature Online (Automated). Operates on CD-Rom software. Updated monthly and contains the most recent research developments. Provides journal text and medical materials using specific type of search strategy for results.

(Contact: Medical Library, 767-6542)

(MEPRS) Medical Expense and Performance Reporting System (Automated). Combines the Uniform Chart of Accounts Personnel Utilization System and Uniform Expense and Assignment System. Provides consistent principles, standards, policies, definitions, and requirements for accounting and reporting of expense, manpower and performance by military medical facilities. Provides in detail: uniform performance indicators; common expense classification by work centers; uniform reporting of personnel utilization data by work centers; and a cost assignment methodology. Information provided by the MEPR assists in measuring productivity, development of performance standards, development of programs estimating equations, categorization of management effectiveness, and determination of areas requiring management emphasis. Also provides a means of identifying facility and system medical

capability and indicates actual and potential areas for interservice support of medical work-load. It is the primary tool used to make budgetary, manpower, and other important resource allocation decision.

(Contact: MEPRS Branch, 767-6107)

(MHCMIS) Military Healthcare Management Information System (Automated). MHCMIS provides a universal interface to external systems and gateways to include CHCS, EASSIII, DEERS, CHAMPUS, and DMIS. Used to make management decisions and determine utilization of care systems. Also, patient-level case mix analysis. Can provide statistics of observed versus expected workload and utilization. Can be sorted by procedures and DRG code. Comparison data between other military and civilian medical facilities available.

(Contact: Utilization Management Coordinator, 767-6956 or Managed Care Division, 767-6567)

Micromedex (Automated). Provide medication monographs and references on the approved dosing routes of administration, product identification, poison information, and monitoring parameters. Service available to all health care providers upon request.

(Contact: Pharmacy, 767-6040)

(MIDI/MEIS) Military Item Disposal Instructions/Military Environmental Information Source Database (Automated). Contains destruction instructions and methods for military related items, including pharmaceuticals. Covers both hazardous and nonhazardous military items. The environmental data includes waste disposal instructions, the DOT Emergency Response Guide, and other related publications.

(Contact: Quality Control Technician, 767-6319)

Military Occupational Health Vehicle Surveillance Data (Manual). Statistical information gathered on soldiers in high risk work areas. Data is collected during screening on the Military Occupational Health Vehicle. Used to determine disease clusters and to identify/communicate safety and health readiness issues. (Contact: Occupational Health, 767-5179)

(MODS) Medical Occupational Data System (Automated). Used for AMEDD personnel management to include tracking medical speciality pay. (Contact: Personnel Division, 767-6665)

(MSAM) Manpower Staffing Assessment Model (Automated). Utilizing available workload data, generates manpower requirements documented on the TDA. (Contact: Resource Management Division, 767-6645)

(MSR) Medical Summary Report (Automated). The Army's medical go-to-war reporting system. Summary data is captured for both fixed and nonfixed MTFs. The data is upwardly reported to Office of The Surgeon General and the Department of Defense Health Alliance. Tracks ambulatory workloads. Data elements collected include admission, bed days, sick days, inpatient/outpatient visits, ancillary services, sexually transmitted diseases, absent sick and bed capacity. (Contact: Patient Administration Division, 767-6728)

(MSS) Medical Surveillance System (Automated). Communicable disease, accident, and incident reporting database. This system allows the collection of data for epidemiological surveillance. Information is then transmitted electronically to the Walter Reed Institute of Research. Transmitted data is collected and placed in the Medical Surveillance Monthly Report (MSMR) from the United States Army Center for Health Promotion and Preventive Medicine (USACHPPM). (Contact: Preventive Medicine Services, 767-5196)

NESD Monthly Report (Manual). Written report of the monthly events to include continuing education presented and attendance, use of HSTN for contact hours, CPR class participation, ACLS participation, PALS participation, reservist for the month, nursing students in-house, new orientee to the department, educational TDYs by name and location for the department, MPT class information, ANC preceptor program enrollees, recruitment tour information and ROTC Cadet information. (Contact: Nursing Education and Staff Development, 767-6252)

Nursing Activities Report (Manual). Trending of permanent, intermittent and contract hour nursing personnel by specialty area. Done monthly and used for Utilization Management/Staffing decisions. (Contact: Department of Nursing, 767-6854)

Nursing Budget Report (Manual). Measures and assesses the use of resources in the provisions of patient care activities; monitors fraud, waste and abuse of resources. (Contact: Department of Nursing, 767-6853)

Nutrition Care Division End of Month Inventory (Automated). Documents dry goods stock level as well as produce, dairy, and meat. (Contact: Nutrition Care Division, 767-6995)

Nutrition Care End of Month Report (Automated). Shows monthly and year-to-date status on patient rations; SIK meal days; ALC cash meal days; earned income; purchases; closing inventory; total surcharge collected; expendable supplies; small equipment/furniture; personnel strength/cost; and inpatient/outpatient visits. (Contact: Nutrition Care Division, 767-6995)

Nutrition Care Division QI Minutes (Manual/Automated). Documents trends of performance improvement indicators. Discusses status of staffing, equipment, budget, as well as patient count. Reviews standard indicators such as safety inspections,

Preventive Medicine inspections, as well as, temperatures (serving line and walk-ins). (Contact: Nutrition Care Division, 767-6995)

Occupational Health (OH) Professional Literature/Center for Disease Control (CDC) Data (Manual). Professional journal articles and textbooks written on a variety of OH topics. Morbidity and Mortality Weekly Report of disease and injury statistics. (Contact: Occupational Health, 767-5179)

Occupational Health Workload Data. Statistical data documenting Occupational Health clinic visits, separated by type and OH provider. (Contact: Occupational Health, 767-5179)

Office Space Data Base (Automated). Data base of all available office space in the organization. Used to determine appropriate distribution of office space and to document assignments thereof. (Contact: Resource Management Division, 767-6898)

(OMTD) Organizational Mandatory Training Database (Automated). Provides organizational statistics supporting mandatory staff training compliance. Provides department level reports covering all mandatory training completed, to include course attendance dates. (Contact: Plans, Training, Mobilization, and Security, 767-6809)

Operating Room Cases (Manual). Reports number of cases, episodes of anesthesia, types of anesthesia, and emergencies to MEDCOM Quarterly. (Contact: Operating Room, 767-6008)

Operative and Invasive Procedures Review (Manual). Analysis of operative and invasive procedures based on pre-determined criteria. Includes cases in which there is a significant discrepancy between preoperative/postoperative diagnosis, pathological and any other cases where quality of care concerns are identified. (Contact: Utilization Management, 767-6956)

(PBAC) Program Budget Advisory Committee Minutes (Manual). The PBAC recommends distribution of resources to the Executive Committee. PBAC minutes documents recommendations. (Contact: Resource Management Division, 767-6645)

(PEM) Patient Education Monograph (Automated). Provides standardized medication specific information sheets written for patients. The PEM outlines the medication uses, side effects, and how to properly take the medication. These sheets are available upon request by either the patient or the health care provider. (Contact: Pharmacy, 767-6040)

Persian Gulf Illness (PGI) Patient Data Base (Automated). A statistical database used to collect demographic deployment, and clinical information on those patients entered into the US Army PGI Registry. (Contact: Preventive Medicine Services, 767-5196)

Personnel Security Database (Automated). Documents personnel security clearances, types of background investigations, dates when investigation was conducted, and dates the Central Clearance Facility approved any individual clearances. (Contact: Plans, Training, Mobilization, and Security, 767-6809)

Pharmacy Module (CHCS) (Automated). All pharmacy transactions (to include drugs) are tracked via this system. A Drug Utilization Review may be run for intravenous, or oral medications either inpatient or outpatient. These reports may be run by patient, drug, physician, entire drug family, or MEPRS code. Individual patient electronic profiles are available. Reports are available upon request by health care practitioners, nurses, or health care administrators. (Contact: Pharmacy, 767-6040)

(PAM) Publications Account Maintenance (Automated). This publication system verifies ordering, tracking of all forms and publications in the 12-Series subscription for Ft Stewart, FORSCOM and Department of Army Publications. (Contact: Forms and Publication Office, 767-6997)

(PPC) Purchase Price Comparison Database (Automated). Department of Defense database for comparing average local purchase pricing, depot pricing, and prime vendor pricing for medical items. (Contact: Systems Analyst, 767-6976).

(PROFIS) Professional Officer Filler System (Automated). This system predesignates Active Component AMEDD personnel serving in TDA units, to fill Active Component FORSCOM early deploying units and forward deployed units in Europe and Korea during mobilization or upon execution of a contingency operation. (Contact: Personnel Division, 767-6665)

(QI/RM CM) Quality Improvement/Risk Management Committee Minutes (Manual). Documents the monitoring and evaluation of the quality and appropriateness of patient care as well as performance improvement initiatives. Also documents review of hospital-wide Risk Management activities. (Contact: QI Coordinator, 767-6060)

(QI/RM IL) Quality Improvement/Risk Management Incident Log (FAQ CHCS) (Automated). Identifies data associated with QI events by type and reviewing agency. Allows the QI office to track, trend, and report on the following events: Blood Evaluation, Drug Utilization Incidents, Infection Control, Medical Records, Occurrence Screening, Risk Management, Surgical Case Review, and Ancillary Incident Review. Tracks the events through committees as they are reviewed and final disposition determined. (Contact: QI Coordinator, 767-6060)

(PASBA2) Patient Administration Biostatistical Agency (Automated). Used to track ambulatory workload and collect data on admissions, bed days, sick days, etc. Can compute case mix index examine outliners, and compare length of stay with other military facilities. (Contact: Patient Administration Division, 767-6728)

(QPRAC) Query for Practitioners (Automated). This system is integrated through the National Practitioners Data Bank and allows WACH to query the data for provider and malpractice claims when running reference investigations as a part of the Credentials Review Process.

(Contact: QI Coordinator, 767-6060)

Quality Control Message Log (Manual). Medical Materiel Quality Control (MMQC) messages received from the United States Army Medical Materiel Agency (USAMMA) and other sources. This log documents messages and actions taken.

(Contact: Quality Control Technician, 767-6319).

(RCMAS-OSE) Retrospective Case-Mix Analysis System - Open Systems Environment (Automated). Now incorporated into Military Healthcare Management Information (MHCMIS). See page 18.

(Contact: Utilization Management Coordinator, 767-6956)

Resource Sharing Analysis (Automated). Spreadsheet macro used to analyze a resource sharing agreement to determine if it is profitable or not. This data supports the decision making process concerning the establishment of agreements under TRICARE. The spreadsheet macro is written in Microsoft Excel.

(Contact: Health Systems Branch, 767-6229)

Safety Committee Minutes (Manual). Documentation of safety committee actions. Includes: reports of standing agenda items for the environment of care, trend analysis, countermeasures and actions taken to improve the environment of care.

(Contact: Safety Officer, 767-6012)

(SAS) Stepdown Assignment Statistic (Manual). Productivity data for outpatient nursing specialist, nurse anesthetists, and Community Health Nurses involved in an advanced practice role. (Contact: Ambulatory Care, 767-6646)

Sexually Transmitted Disease (STD) (Automated). A database which tracks individual patients with sexually transmitted diseases and performs disease trend analysis. (Contact: Preventive Medicine Service, 767-6958)

Sick Leave Analysis Report (Automated). Data summary of sick leave usage by civilian employees. Authorized users only may be granted access to this report. (Resource Management Division, 767-6914)

(SIDPERS) Standard Installation/Division Personnel System (Automated). A worldwide automated military personnel information system containing data on every soldier in the Army. At MEDDAC level the system contains information on assigned soldiers such as projected gains and losses (C-13), all soldiers assigned or attached (C-27), soldiers currently flagged for favorable actions (C-95), the Table of Distribution and Allowances indicating which soldier is assigned against each authorization (C-07), and the Company Information System (demographic and local information). (Contact: Personnel Division, 767-6665)

Social Work Service Discharge Planning/Outpatient Contacts (Manual). Used to determine staffing and treatment options. (Contact: SWS, 767-6779)

(SP) Strategic Plan (Manual). Annual operations strategy plan of the organization covering a period of one to five years. Used to provide guidance on readiness, sustainment of resources, and organizational modernization. (Contact: Resource Management Division, 767-6645)

(STANFINS) Standard Financial System (Automated). Army-wide standard accounting system designed to provide sophisticated and comprehensive accounting support and General Ledger control over all resources. This system provides data to serve all our budgetary purposes. (Contact: Resource Management Division, 767-6254)

Supplemental Care Program Data (Automated). Managed Care System. This data file provides information on the Supplemental Care Program to include Common Procedural Terminology Codes, cost, patient, doctor, date of service, status of bill, and responsible department. The data file is in Base IV. (Contact: Health Benefits Branch, 767-6231)

(TACCS) Tactical Army Combat Computer System (Automated). System used to perform standard installation division personnel actions. It produces promotion packets, allows ethic queries for a variety of rosters and suspenses. (Contact: Personnel Division, 767-6665)

(TAMMIS-MEDSUP) Theater Army Medical Management Information System - Medical Supply Module (Automated). Logistics system. Provides customer request processing and retail and installation level requisitioning and receiving of materiel. Provides information used to maintain local warehouse/storeroom and par-level (cart) stockage. The system allows for queries of specific items, order status, and transaction histories by item or customer. The system is linked via automated systems to standard financial systems for fund obligation and customer billing and to wholesale level supply, prime vendor, and contracting systems for requisition support. Supports medical logistics, pharmacy, and self-service supply center (SSSC) operations. (Contact: Systems Analyst, 767-6976).

(TDA) Table of Distribution and Allowances (Automated). Computerized listing of all authorized military and civilian duty positions in the organization. Used to requisition personnel. (Contact: Resource Management Division, 767-6896)

(TPOCS) Third Party Outpatient Collections System (Automated). Used to bill third party insurance agencies for services provided on an outpatient basis. (Contact: Patient Administration Division, 767-6743)

(UM CM) Utilization Management Committee Minutes (Manual). Documents recommendations made about the allocation of appropriate resources necessary to provide quality patient care in the most cost-effective manner, including the over-utilization, underutilization, and inefficient scheduling of resources as part of the Utilization Review element of the MEDDAC QI Program. (Contact: QI Coordinator, 767-6060)

Vital Statistics (Manual). Statistical report of total number of births and deaths. Individualized data is reported to the local registrar's office who in turns reports the information to the Georgia Department of Vital Statistics. (Contact: Patient Affairs, 767-6893)

Water Quality Analysis (Manual). Data on sanitary quality of water supply to determine compliance with state and federal regulations (GA-EPD/US-EPA). Chemical and bacterial analysis is performed at set frequencies and upon request to determine the performance of the water system and the efficacy of controls. (Contact: Environmental Health, 767-3050)

(WMSN) Workload Management System for Nursing (Automated). Reports patient census, activity and staffing by skill level to make Utilization Management decisions about staffing. (Contact: Department of Nursing, 767-6854)

Work Order Database (Automated). Locally developed facility management system. Provides individual project tracking, expenditures, and history for facility or grounds related construction, renovation, and repair projects. (Contact: Work Order Clerk, 767-6170)

Worker's Compensation Data (Automated). Statistical database maintained by the Department of Labor which records injury/illness data, lost workdays, compensation costs and medical costs. (Contact: Occupational Health, 767-5179)

1040 Report (Automated). Report summarizes BCLS/ACLS/ATLS, licensure renewal dates for each provider. (Contact: Credentials Coordinator, 767-6933)

24-Hour Nursing Report (Manual). Provides 24-hour view of patient population, patient safety and health care concerns, nursing staff by specialty and level of expertise. Used to adjust staffing and address specific patient care concerns. (Contact: Department of Nursing, 767-6854)

GLOSSARY

AA - Automated Attendant

ACD - Automatic Call Distribution

ACHN - Army Community Health Nursing

ACLS - Advance Cardiac Life Support

ACPERs - Army Civilian Personnel Data

ACTUR - Automated Central Tumor Registry

AD - Active Duty

ADAPCP - Alcohol and Drug Abuse Prevention and Control Program

AMBTS - Automated Medical Board Tracking System

AMEDD - Army Medical Department

AMEDDPAS - Army Medical Department Property Accountability System

ANC - Army Nurse Corps

ATLS - Advance Trauma Life Support

BCLS - Basic Cardiac Life Support

CABP - Catchment Area Business Plan

CAP - College of American Pathology

CDC - Center for Disease Control

CD-ROM - Compact Disk - Read Only Memory

CEEP - Capital Expense Equipment Program

CHAMPUS - Civilian Health and Medical Program of the Uniformed Services

CHCS - Composite Health Care System

CPOC - Computer Assisted Practice of Cardiology

CPR - Cardiopulmonary Resuscitation

CPS - Command Performance Summary

CSD - Clinical Support Division

DAMIS - Drug and Alcohol Management Information System

DAC - Department of the Army Civilian

DCAS - Defense Commitment Accounting System

DCP - Directorate of Civilian Personnel

DCPS - Defense Civilian Pay System

DDN - Defense Data Network

DEERS - Defense Eligibility Enrollment Reporting System

DOM - Department of Medicine

DON - Department of Nursing

DOT - Department of Transportation

DPC - Department of Primary Care

DRG - Diagnostic Related Group

EDAS - Enlisted Distribution Assignment System

EENT - Eye, Ear, Nose, and Throat Service

EKG - Electrocardiogram

ETC - Etcetera

FORSCOM - United States Army Forces Command

FSS - Fire Safety Surveys

FS - Fort Stewart

GA-EPD - Georgia Environmental Protection Division

HBA- Health Benefit Advisor

HAAF- Hunter Army Airfield

HEARS - Hearing Evaluation Automated Register System

HHIMS - Health Hazard Inventory Module System

HIV - Human Immunodeficiency Virus

HMIS - Hazardous Material Information System

HA - Health Risk Appraisals

HRA - Health Risk Appraisals

HSTN EATS - Health and Science Television Network Electronics Academy Tracking System

HTAS - Hospital Telephone Appointment System

IMD - Information Management Division

LADS - Labor and Delivery System

MASS - Medical Analysis Support System

MCD - Managed Care Division

MCP - Managed Care Program

MEB - Medical Evaluation Board

MEDCASE - Medical Care and Support Equipment

MEDCAT - Medical Catalog on CD ROM

MEDCOM - Medical Command

MEDDAC - Medical Department Activity

MEDLINE - Medical Literature Online

MEPRS - Medical Expense and Performance Reporting System

MHCMIS - Military Healthcare Management Information System

MIDI/MEIS - Military Item Disposal Instructions/Military Environmental Information Source Database

MMQC - Medical Material Quality Control

MODS - Medical Occupational Data System

MPT - Medical Proficiency Training

MSAM - Manpower Staffing Assessment Model

MSMR - Medical Surveillance Monthly Report

MSPR - Medical Staff Peer Review

MSR - Medical Summary Report

MSS - Medical Surveillance System

MTF - Medical Treatment Facility

NAS - Nonavailability Statement

NCD - Nutrition Care Division

NCOIC - Non-Commissioned Officer in Charge

NESD - Nursing, Education and Staff Development

OMTD - Organizational Mandatory Training Database

PAD - Patient Administration Division

PALS - Pediatric Advanced Life Saving

PAM - Publications Account Maintenance

PASBA2 - Patient Administration Biostatistical Agency

PBAC - Program Budget Advisory Committee

PCM - Primary Care Manager

PEM - Patient Education Monograph

PGI - Persian Gulf Illness

PMS - Preventive Medicine Service

PPC - Purchase Price Comparison Database

PRO - Patient Representative Office

PROFIS - Professional Officer's Filler System

PTMS - Plans, Training, Mobilization and Security

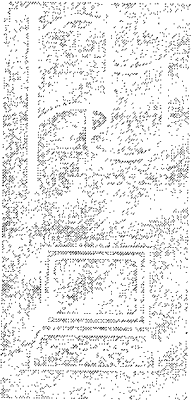
QI - Quality Improvement

QI/RM CM - Quality Improvement/Risk Management Committee Minutes

QI/RM IL - Quality Improvement/Risk Management Incident Log

QPRAC - Query for Practitioners
RM - Risk Management
RMD - Resource Management Division
ROTC - Reserve Officer's Training Corps
SAS - Stepdown Assignment Statistic
SIDPERS - Standard Installation/Division Personnel System
SIK - Subsistence in Kind
SP - Strategic Plan
SRP - Soldier Readiness Processing
SSN - Social Security Number
SSSC - Self Service Supply Center
STANFINS - Standard Financial System
STD - Sexually Transmitted Disease
SWS - Social Work Services
TACCS - Tactical Army Combat Computer System

TAMMIS-MEDSUP - Army Medical Management Information System - Medical Supply Module
TB - Technical Bulletin
TDA - Table of Distribution and Allowances
TDRL - Temporary Disability Retirement List
TDY - Temporary Duty
TPOCS - Third Party Outpatient Collections System
UM CM - Utilization Management Committee Minutes
USAMMA - United States Army Medical Materiel Agency
USA - United States Army
USACHPPM - United States Army Center for Health Promotion and Preventive Medicine
USAR - United States Army Reserve
US-EPA - United States Environmental Protection Agency
USNG - United States National Guard
WACH - Winn Army Community Hospital
WMSN - Workload Management System for Nursing

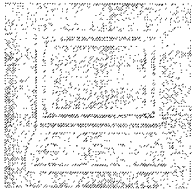


Current Hardware Platform Standards

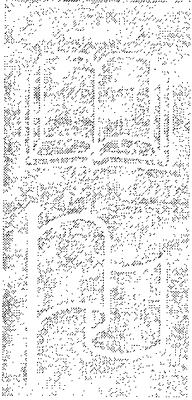
Basic Configuration

Clinical Configuration

Manager Configuration



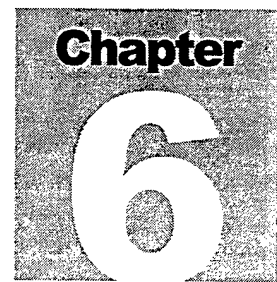
Current Software Standards



Software Acquisition Procedures



Hardware Acquisition Procedures

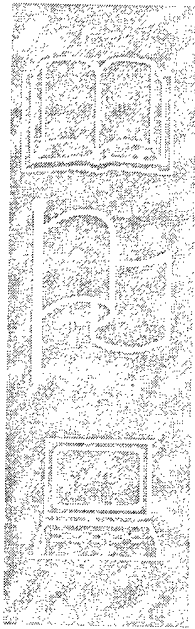


Training of Personnel

Contents:

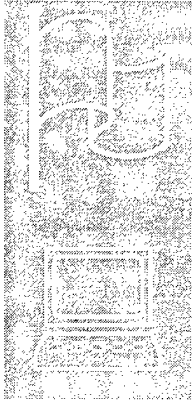
- Current Training Calendar
- Available Training Resources
- Department Level Training Plans
- Lessons Learned

Current Training Calendar



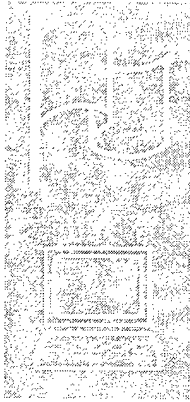


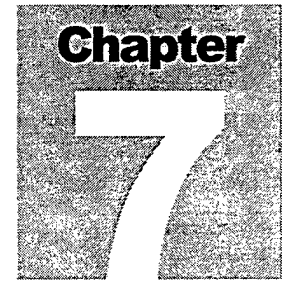
Available Training Resources



Department Level Training Plans

Lessons Learned

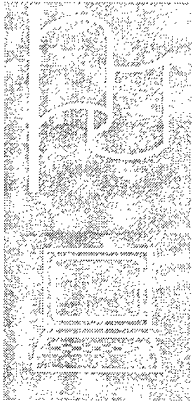




Medical Record Documentation

Contents:

- JCAHO Standards
- Telemedicine Procedures and Policies
- Other Forms of Electronic Medical Records



JCAHO Standards



Joint Commission
on Accreditation of Healthcare Organizations

1995

REVISED CLOSED MEDICAL RECORD FORM

****Please note that the attached form will be used during your upcoming survey. It replaces the closed medical record form that is included in the "Hospital Accreditation Services Guidelines for Survey."**

CLOSED MEDICAL RECORD FORM

Complete one form for each requested closed medical record

- Instructions:
1. Enter the medical record number _____
 2. Enter the date of discharge _____
 3. Enter the type of record
(e.g., DNR; outpatient; autopsy) _____
 4. Discipline/credentials of individual
completing this form: _____
 5. Review the record for each item listed.
 6. Select one of the three boxes to the right of the item; select the box that
reflects the status of the item for the record at hand
Select from:
Y - the record does contain the item
N - the record does NOT contain the item
NA - the item is not applicable to the record at hand

Standard #	GENERAL ITEMS	Y	N	NA
IM.7.9	All entries in the record are dated and,			
IM.7.9	authenticated			
IM.7.2.1	Patient demographics includes name			
IM.7.2.1	address			
IM.7.2.1	date of birth			
IM.7.2.1	legal representative, if applicable			
IM.7.2.2	Legal status (e.g., competency) documented for patients receiving Mental Health services			
RI.1.2.5	existence of advance directive is determined			
IM.7.2.10	Informed consent for treatment per policy (i.e., risks, benefits, alternatives)			
Standard #	DISCHARGE INFORMATION	Y	N	NA
IM.7.3	Discharge summary or final progress note or transfer summary is present			

CLOSED MEDICAL RECORD FORM

IM.7.2.21	Discharge information includes all medications prescribed or dispensed at discharge			
IM.7.3	reason patient was admitted			
IM.7.3	operative/invasive procedure reports			
IM.7.3	treatment rendered			
IM.7.3	discharge instructions			
IM.7.3	condition at discharge			
MS.6	Autopsy - met Medical Staff autopsy criteria			
Standard #	HISTORY & PHYSICAL	Y	N	NA
PE.1.7.1	H & P completed within 24 hours of admission			
IM.7.2.6	Diagnosis/impression recorded on H & P			
IM.7.2.7	Reason admitted is documented			
IM.7.2.8	Treatment plans documented in H & P			
Standard #	ORDERS	Y	N	NA
IM.7.9	All orders are dated			
IM.7.9	All orders are authenticated			
IM.7.8.1	Verbal orders authenticated within organization's required time frame			
IM.7.9	House staff orders are countersigned			
Standard #	EDUCATION	Y	N	NA
PF.2.1	Assessment of learning needs			
PF.2.1	assessment of abilities			
PF.2.1	assessment of readiness to learn			
PF.2.1.1	Assessment of cultural practices			
PF.2.1.1	assessment of religious practices			
PF.2.1.1	assessment of limitations			
PF.2.2.1	Educ. about safe & effective use of medications			
PF.2.2.2	Educ. about safe & effective use of equipment			
PF.2.2.3	Educ. about drug-food interactions			
PF.2.2.3	Counseling on nutrition intervention and/or modified diets			
PF.2.2.4	Instructed about rehab techniques			
PF.2.2.5	Instructed about community resources			
PF.4.2	Educ. process was interdisciplinary			

CLOSED MEDICAL RECORD FORM

Standard #	EDUCATION	Y	N	NA
PF.2.2.6	Educ. about when & how to obtain further care			
PF.3	Educated on discharge instructions			
Standard #	ASSESSMENT OF PATIENTS	Y	N	NA
TX.3.4.1	Monitoring of medications effect on the patient includes assessment based on collective observations			
TX.3.4.1	including the patient's own perception			
PE.1.1	Need for care/treatment is determined & documented			
PE.1.1	need for type of care is determined & documented			
PE.1.1	need for further assessment is determined & documented			
PE.1.1	Physical assessments are documented			
PE.1.1	social assessments are documented			
PE.1.1	psychologic assessments are documented			
	Scope/intensity of further assessment is determined by:			
PE.1.2.1	patient diagnosis			
PE.1.2.2	treatment setting			
PE.1.2.3	patient desire for treatment			
PE.1.2.4	patient response to previous treatment			
PE.1.3	Need for nutritional assessment is determined			
PE.1.4	Need for functional assessment is determined			
PE.1.6	Need for discharge planning is assessed			
TX.4.1	TPN requirement is based on assessment			
TX.4.2	Orders for TPN are based on assessment			
Standard #	REASSESSMENT	Y	N	NA
IM.7.2.15	Is present in the medical record			
PE.2.1	Is completed at specific times in the course of treatment			
PE.2.2	Is done to determine the patient's response to treatment			
PE.2.3	Is done when there is significant change in the patient's condition			
PE.2.4	Is done when there is a significant change in the patient's diagnosis			
PE.3	Assessment data is integrated to identify & prioritize patient's needs for care/treatment			
PE.3.1	Care/treatment decisions are based on patient needs/priorities			

CLOSED MEDICAL RECORD FORM

Standard #	OPERATIVE/INVASIVE PROCEDURES	Y	N	NA
PE.1.8	Pre-op H&P and diagnosis is recorded			
IM.7.4.1	- by licensed independent practitioner			
PE.1.8.1	Pre-anesthesia assessment (e.g. risk, ASA) is documented			
TX.2.1	Pre-op plan for anesthesia is recorded			
PE.1.8.2	Patient determined to be appropriate anes. candidate			
PE.1.8.2.1	- by licensed independent practitioner			
TX.5.3.1	Nursing care plan recorded pre-op			
TX.5.3.2	A procedure/op plan is recorded pre-op			
PE.1.8.3	Prior to induction, patient is re-evaluated for anesthesia			
TX.2.3	Pt. physiological status measured & assessed during anesthesia			
TX.5.4	Post operative monitoring of patient includes:			
TX.5.4.1	- physiological status			
TX.5.4.1	- mental status			
TX.5.4.2	- pathological findings			
TX.5.4.3	- IV's			
TX.5.4.3	- Drugs			
TX.5.4.3	- Blood & components			
TX.5.4.4	- unusual events: post-op complications/mgmt			
TX.2.4.1	Patient discharge from the post-anesthesia recovery area by licensed independent practitioner or			
TX.2.4.1	Patient discharge from the post-anesthesia recovery area by meeting Med. Staff criteria			
IM.7.4.3.6	Name of licensed independent practitioner who discharge the patient from the anesthesia recovery area is recorded			
IM.7.4.3.4	Individual who provided nursing services in post-op anes. recovery area is identified			
Standard #	OPERATIVE NOTE	Y	N	NA
IM.7.4.2	Op note is documented immediately post-op			
	Operative note content includes (as applicable):			
IM.7.4.2	- findings			
IM.7.4.2	- procedures			
IM.7.4.2	- specimen removed			
IM.7.4.2	- post-op dx			

CLOSED MEDICAL RECORD FORM

Standard #	OPERATIVE NOTE	Y	N	NA
IM.7.4.2	- name of surgeon/assistant			
IM.7.4.2.1	Op note is authenticated by the surgeon			
IM.7.4.2.2	A progress note about the operation is entered immediately when there is a transcription delay			
Standard #	SPECIAL POPULATIONS: PEDIATRIC RECORD INCLUDES	Y	N	NA
PE.7.1	Developmental age			
PE.7.1	- length/height			
PE.7.1	- head circumference			
PE.7.1	- weight			
PE.7.2	Education needs			
PE.7.2	- daily activities			
PE.7.3	Immunization status			
PE.7.4	Family/guardian expectations for and involvement in the assessment			
PE.7.4	Family/guardian involvement expectations in tx			
PE.7.4	Family/guardian involvement expectations in continued care of patient			
Standard #	EMERGENCY CARE	Y	N	NA
IM.7.2.3	Care prior to arrival			
IM.7.6.1.1	Time & means of arrival			
IM.7.6.1.3	Conclusions at discharge			
IM.7.6.1.3	- disposition			
IM.7.6.1.3	- condition			
IM.7.6.1.3	- instructions			
IM.7.6.2	Copy of ED record to followup provider			
IM.7.6.2	- patient authorizes release of ED record			
	Transfer not arbitrary			
CC.6	- receiving hospital consent to transfer			
CC.7	- information goes with patient			
Standard #	CARE OF THE DYING PATIENT	Y	N	NA
RI.1.2.8	Primary and Secondary symptoms treated			
RI.1.2.8	Pain management			
RI.1.2.8	Psychological concerns addressed			

CLOSED MEDICAL RECORD FORM

Standard #	CARE OF THE DYING PATIENT	Y	N	NA
RI.1.2.8	Spiritual concerns addressed			
RI.1.2.6	Orders for withholding resuscitative services			
RI.1.2.7	Orders for withdrawing life-sustaining treatment			
Standard #	AMBULATORY MR INCLUDES:	Y	N	NA
IM.7.5	- DX			
IM.7.5	- Conditions			
IM.7.5	- Procedures			
IM.7.5	- Drug Allergies			
IM.7.5 IM.7.2.21	- medications dispensed/prescribed			
IM.7.5.1	- above list started by 3rd visit			
Standard #	RESTRAINT/SECLUSION	Y	N	NA
TX.7.1	MD time-limited order			
TX.7.1	Pt. needs attended to			
Standard #	ALLEGED/SUSPECTED ABUSE/NEGLECT	Y	N	NA
PE.6.1	Assessment conducted with consent			
PE.6.2	Safeguard evidence			
PE.6.2	- info released by patient			
PE.6.3	Legal notification, as required			
Standard #	MENTAL HEALTH	Y	N	NA
RI.M.1.4.3.1	Therapeutic indications necessitating restrictions are evaluated for therapeutic effectiveness			
RI.M.1.4.3.1.1	Restrictions are explained			
RI.M.1.4.3.1.1	Restrictions are determined with participation of patient/family			
RI.M.1.4.3.2.3	Patient receives written statement of rights			
	Before requesting consent for participation all patients are supplied with:			
RI.M.2.1.1	- description of benefits to be expected			
RI.M.2.1.2	- description of potential discomforts and risks			
RI.M.2.1.3	- description of alternative services			
RI.M.2.1.4	- full explanation of procedures to be followed			
RI.M.2.1.5	- assurance of right to refuse to participate			
RI.M.2.2	All consent forms (RI.M.2.1 - RI.M.2.1.5) indicate:			

CLOSED MEDICAL RECORD FORM

Standard #	MENTAL HEALTH	Y	N	NA
	- name of person who supplied prospective participant with information			
	- date form was signed			
	All consent forms (RI.M.2.1 - RI.M.2.5) address participants right to:			
RI.2.2	- privacy			
RI.2.2	- confidentiality			
RI.2.2	- safety			
RI.M.4	Determination of the need for protective services, if appropriate			
RI.M.5	Need for guardianship determined through independent assessment			
PE.M.1.5.1	Psychiatric evaluation for inpatients includes:			
PE.M.1.5.1.1	history of emotional problems/treatment			
PE.M.1.5.1.1	history of behavioral problems/treatment			
PE.M.1.5.1.2	history of substance abuse problems/treatment			
PE.M.1.5.1.2	Current emotional & behavioral functioning			
PE.M.1.5.1.3	Maladaptive or problem behaviors			
PE.M.1.5.1.4	Psychiatric evaluation			
PE.M.1.5.1.5	Mental status exam appropriate to patients age			
PE.M.1.8	Legal assessment of patient completed and entered in record, when appropriate			
TX.M.1.5.1	Documented justification of clinical problems and needs not addressed			
TX.M.1.5.2	Patients/family's perceptions of his/her needs			
TX.M. 1.8.2	Daily activity services, when provided are incorporated into treatment plan			
TX.M.6.1.3	Rationale for using seclusion or restraint addresses inadequacy of less restrictive interventions			
TX.M.6.1.4	To justify procedure, individuals permitted by law and organization conducts clinical assessment of individual prior to authorizing use of seclusion or restraint.			
TX.M.6.1.5	Written order for restraint or seclusion time limited (does not exceed 24 hours)			
TX.M.6.1.6	In emergency, seclusion or restraint may be used for a period not to exceed one hour before an order of a LIP is required if seclusion or restraint is continued.			
TX.M.6.1.7	"PRN" orders not permitted.			

CLOSED MEDICAL RECORD FORM

Standard #	MENTAL HEALTH	Y	N	NA
TX.6.1.9	Individual in seclusion or restraint has needs attended to every 15 minutes.			
TX.M.6.5.10	Time-out used in accordance with patients program and organization p & p.			
TX.M.6.5.11	Patient record documents failure of less restrictive alternatives when restraining devices aversive behavioral consequences are used.			
TD.M.6.5.12	Restraining devices or aversive behavioral consequences used in accordance with patients program and organization p & p.			
TX.M.6.6	When legal, correctional, and/or administrative decisions affect patients treatment, organization has mechanism to coordinate those decisions with clinical decisions, including:			
TX.M.6.6.1	- use of seclusion and restraint for nonclinical purposes			
TX.M.6.6.2	- imposition of disciplinary restrictions			
TX.M.6.6.3	- length of stay			
TX.M.6.6.4	- restriction of rights			
TX.M.6.6.5	plan for discharge and continuing care			
PF.M.3.1	Documentation of academic education, when appropriate			
EC.M.4.1.3	Personal hygiene and grooming are taught, including			
EC.M.4.1.3	- bathing			
EC.M.4.1.3	- brushing teeth			
EC.M.4.1.3	- caring for hair and nails			
EC.M.4.1.3	- using toilet			

TALLY FOR CLOSED MEDICAL RECORD FORMS

- Instructions:
1. Add up (total) all of the closed medical record forms.
 2. Enter, in column A, the total number of forms with a Y entered for the item listed.
(see attached instructions for example)
 3. Enter, in column B, the total number of forms with a Y or N entered for the item listed.
(see attached instructions for example)
 4. Enter, in column C, the percentage of forms with a Y.
(i.e., Divide the number in column A by the number in column B).
(see attached instructions for example)

Standard #	GENERAL ITEMS	# Y	# Y & N	A ÷ B = %
IM.7.9	All entries in the record are dated and,			
IM.7.9	authenticated			
IM.7.2.1	Patient demographics includes name			
IM.7.2.1	address			
IM.7.2.1	date of birth			
IM.7.2.1	legal representative, if applicable			
IM.7.2.2	Legal status (e.g., competency) documented for patients receiving Mental Health. services			
RI.1.2.5	existence of advance directive is determined			
IM.7.2.10	Informed consent for treatment per policy (i.e., risks, benefits, alternatives)			
Standard #	DISCHARGE INFORMATION	# Y	# Y & N	A ÷ B = %
IM.7.3	Discharge summary or final progress note or transfer summary is present			
IM.7.2.21	Discharge information includes all medications prescribed or dispensed at discharge			
IM.7.3	reason patient was admitted			
IM.7.3	operative/invasive procedure reports			
IM.7.3	treatment rendered			

TALLY FOR CLOSED MEDICAL RECORD FORMS

Standard #	DISCHARGE INFORMATION	# Y	# Y & N	A ÷ B = %
IM.7.3	discharge instructions			
IM.7.3	condition at discharge			
MS.6	Autopsy - met Medical Staff autopsy criteria			
Standard #	HISTORY & PHYSICAL	# Y	# Y & N	A ÷ B = %
PE.1.7.1	H & P completed within 24 hours of admission			
IM.7.2.6	Diagnosis/impression recorded on H & P			
IM.7.2.7	Reason admitted is documented			
IM.7.2.8	Treatment plans documented in H & P			
Standard #	ORDERS	# Y	# Y & N	A ÷ B = %
IM.7.9	All orders are dated			
IM.7.9	All orders are authenticated			
IM.7.8.1	Verbal orders authenticated within organization's required time frame			
IM.7.9	House staff orders are countersigned			
Standard #	EDUCATION	# Y	# Y & N	A ÷ B = %
PF.2.1	Assessment of learning needs			
PF.2.1	assessment of abilities			
PF.2.1	assessment of readiness to learn			
PF.2.1.1	Assessment of cultural practices			
PF.2.1.1	assessment of religious practices			
PF.2.1.1	assessment of limitations			
PF.2.2.1	Educ. about safe & effective use of medications			
PF.2.2.2	Educ. about safe & effective use of equipment			
PF.2.2.3	Educ. about drug-food interactions			
PF.2.2.3	Counseling on nutrition intervention and/or modified diets			
PF.2.2.4	Instructed about rehab techniques			
PF.2.2.5	Instructed about community resources			
PF.4.2	Educ. process was interdisciplinary			
PF.2.2.6	Educ. about when & how to obtain further care			
PF.3	Educated on discharge instructions			

TALLY FOR CLOSED MEDICAL RECORD FORMS

Standard #	ASSESSMENT OF PATIENTS	# Y	# Y & N	A ÷ B = %
TX.3.4.1	Monitoring of medications effect on the patient includes assessment based on collective observations			
TX.3.4.1	including the patient's own perception			
PE.1.1	Need for care/treatment is determined & documented			
PE.1.1	need for type of care is determined & documented			
PE.1.1	need for further assessment is determined & documented			
PE.1.1	Physical assessments are documented			
PE.1.1	social assessments are documented			
PE.1.1	psychologic assessments are documented			
	Scope/intensity of further assessment is determined by:			
PE.1.2.1	patient diagnosis			
PE.1.2.2	treatment setting			
PE.1.2.3	patient desire for treatment			
PE.1.2.4	patient response to previous treatment			
PE.1.3	Need for nutritional assessment is determined			
PE.1.4	Need for functional assessment is determined			
PE.1.6	Need for discharge planning is assessed			
TX.4.1	TPN requirement is based on assessment			
TX.4.2	Orders for TPN are based on assessment			
Standard #	REASSESSMENT	# Y	# Y & N	A ÷ B = %
IM.7.2.15	Is present in the medical record			
PE.2.1	Is completed at specific times in the course of treatment			
PE.2.2	Is done to determine the patient's response to treatment			
PE.2.3	Is done when there is significant change in the patient's condition			
PE.2.4	Is done when there is a significant change in the patient's diagnosis			
PE.3	Assessment data is integrated to identify & prioritize patient's needs for care/treatment			
PE.3.1	Care/treatment decisions are based on patient needs/priorities			
Standard #	OPERATIVE/INVASIVE PROCEDURES	# Y	# Y & N	A ÷ B = %
PE.1.8	Pre-op H&P and diagnosis is recorded			
IM.7.4.1	- by licensed independent practitioner			
PE.1.8.1	Pre-anesthesia assessment (e.g. risk, ASA) is documented			

TALLY FOR CLOSED MEDICAL RECORD FORMS

Standard #	OPERATIVE/INVASIVE PROCEDURES	# Y	# Y & N	A ÷ B = %
TX.2.1	Pre-op plan for anesthesia is recorded			
PE.1.8.2	Patient determined to be appropriate anes. candidate			
PE.1.8.2.1	- by licensed independent practitioner			
TX.5.3.1	Nursing care plan recorded pre-op			
TX.5.3.2	A procedure/op plan is recorded pre-op			
PE.1.8.3	Prior to induction, patient is re-evaluated for anesthesia			
TX.2.3	Pt. physiological status measured & assessed during anesthesia			
TX.5.4	Post operative monitoring of patient includes:			
TX.5.4.1	- physiological status			
TX.5.4.1	- mental status			
TX.5.4.2	- pathological findings			
TX.5.4.3	- IV's			
TX.5.4.3	- Drugs			
TX.5.4.3	- Blood & components			
TX.5.4.4	- unusual events: post-op complications/mgmt			
TX.2.4.1	Patient discharge from the post-anesthesia recovery area by licensed independent practitioner or			
TX.2.4.1	Patient discharge from the post-anesthesia recovery area by meeting Med. Staff criteria			
IM.7.4.3.6	Name of licensed independent practitioner who discharge the patient from the anesthesia recovery area is recorded			
IM.7.4.3.4	Individual who provided nursing services in post-op anes. recovery area is identified			
Standard #	OPERATIVE NOTE	# Y	# Y & N	A ÷ B = %
IM.7.4.2	Op note is documented immediately post-op			
	Operative note content includes (as applicable):			
IM.7.4.2	- findings			
IM.7.4.2	- procedures			
IM.7.4.2	- specimen removed			
IM.7.4.2	- post-op dx			
IM.7.4.2	- name of surgeon/assistant			
IM.7.4.2.1	Op note is authenticated by the surgeon			

TALLY FOR CLOSED MEDICAL RECORD FORMS

Standard #	OPERATIVE NOTE	# Y	# Y & N	A ÷ B = %
IM.7.4.2.2	A progress note about the operation is entered immediately when there is a transcription delay			
Standard #	SPECIAL POPULATIONS: PEDIATRIC RECORD INCLUDES	# Y	# Y & N	A ÷ B = %
PE.7.1	Developmental age			
PE.7.1	- length/height			
PE.7.1	- head circumference			
PE.7.1	- weight			
PE.7.2	Education needs			
PE.7.2	- daily activities			
PE.7.3	Immunization status			
PE.7.4	Family/guardian expectations for and involvement in the assessment			
PE.7.4	Family/guardian involvement expectations in tx			
PE.7.4	Family/guardian involvement expectations in continued care of patient			
Standard #	EMERGENCY CARE	# Y	# Y & N	A ÷ B = %
IM.7.2.3	Care prior to arrival			
IM.7.6.1.1	Time & means of arrival			
IM.7.6.1.3	Conclusions at discharge			
IM.7.6.1.3	- disposition			
IM.7.6.1.3	- condition			
IM.7.6.1.3	- instructions			
IM.7.6.2	Copy of ED record to followup provider			
IM.7.6.2	- patient authorizes release of ED record			
	Transfer not arbitrary			
CC.6	- receiving hospital consent to transfer			
CC.7	- information goes with patient			
Standard #	CARE OF THE DYING PATIENT	# Y	# Y & N	A ÷ B = %
RI.1.2.8	Primary and Secondary symptoms treated			
RI.1.2.8	Pain management			
RI.1.2.8	Psychological concerns addressed			
RI.1.2.8	Spiritual concerns addressed			

TALLY FOR CLOSED MEDICAL RECORD FORMS

Standard #	CARE OF THE DYING PATIENT	# Y	# Y & N	A ÷ B = %
RI.1.2.6	Orders for withholding resuscitative services			
RI.1.2.7	Orders for withdrawing life-sustaining treatment			
Standard #	AMBULATORY MR INCLUDES:	# Y	# Y & N	A ÷ B = %
IM.7.5	- DX			
IM.7.5	- Conditions			
IM.7.5	- Procedures			
IM.7.5	- Drug Allergies			
IM.7.5 IM.7.2.21	- medications dispensed/prescribed			
IM.7.5.1	- above list started by 3rd visit			
Standard #	RESTRAINT/SECLUSION	# Y	# Y & N	A ÷ B = %
TX.7.1	MD time-limited order			
TX.7.1	Pt. needs attended to			
Standard #	ALLEGED/SUSPECTED ABUSE/NEGLECT	# Y	# Y & N	A ÷ B = %
PE.6.1	Assessment conducted with consent			
PE.6.2	Safeguard evidence			
PE.6.2	- info released by patient			
PE.6.3	Legal notification, as required			
Standard #	MENTAL HEALTH	# Y	# Y & N	A ÷ B = %
RI.M.1.4.3.1	Therapeutic indications necessitating restrictions are evaluated for therapeutic effectiveness			
RI.M.1.4.3.1.1	Restrictions are explained			
RI.M.1.4.3.1.1	Restrictions are determined with participation of patient/family			
RI.M.1.4.3.2.3	Patient receives written statement of rights			
	Before requesting consent for participation all patients are supplied with:			
RI.M.2.1.1	- description of benefits to be expected			
RI.M.2.1.2	- description of potential discomforts and risks			
RI.M.2.1.3	- description of alternative services			
RI.M.2.1.4	- full explanation of procedures to be followed			
RI.M.2.1.5	- assurance of right to refuse to participate			
RI.M.2.2	All consent forms (RI.M.2.1 - RI.M.2.1.5) indicate:			

TALLY FOR CLOSED MEDICAL RECORD FORMS

Standard #	MENTAL HEALTH	# Y	# Y & N	A ÷ B = %
	- name of person who supplied prospective participant with information			
	- date form was signed			
	All consent forms (RI.M.2.1 - RI.M.2.5) address participants right to:			
RI.2.2	- privacy			
RI.2.2	- confidentiality			
RI.2.2	- safety			
RI.M.4	Determination of the need for protective services, if appropriate			
RI.M.5	Need for guardianship determined through independent assessment			
PE.M.1.5.1	Psychiatric evaluation for inpatients includes:			
PE.M.1.5.1.1	history of emotional problems/treatment			
PE.M.1.5.1.1	history of behavioral problems/treatment			
PE.M.1.5.1.2	history of substance abuse problems/treatment			
PE.M.1.5.1.2	Current emotional & behavioral functioning			
PE.M.1.5.1.3	Maladaptive or problem behaviors			
PE.M.1.5.1.4	Psychiatric evaluation			
PE.M.1.5.1.5	Mental status exam appropriate to patients age			
PE.M.1.8	Legal assessment of patient completed and entered in record, when appropriate			
TX.M.1.5.1	Documented justification of clinical problems and needs not addressed			
TX.M.1.5.2	Patients/family's perceptions of his/her needs			
TX.M.1.8.2	Daily activity services, when provided are incorporated into treatment plan			
TX.M.6.1.3	Rationale for using seclusion or restraint addresses inadequacy of less restrictive interventions			
TX.M.6.1.4	To justify procedure, individuals permitted by law and organization conducts clinical assessment of individual prior to authorizing use of seclusion or restraint.			
TX.M.6.1.5	Written order for restraint or seclusion time limited (does not exceed 24 hours)			
TX.M.6.1.6	In emergency, seclusion or restraint may be used for a period not to exceed one hour before an order of a LIP is required if seclusion or restraint is continued.			
TX.M.6.1.7	"PRN" orders not permitted.			

TALLY FOR CLOSED MEDICAL RECORD FORMS

Standard #	MENTAL HEALTH	# Y	# Y & N	A ÷ B = %
TX.6.1.9	Individual in seclusion or restraint has needs attended to every 15 minutes.			
TX.M.6.5.10	Time-out used in accordance with patients program and organization p & p.			
TX.M.6.5.11	Patient record documents failure of less restrictive alternatives when restraining devices aversive behavioral consequences are used.			
TD.M.6.5.12	Restraining devices or aversive behavioral consequences used in accordance with patients program and organization p & p.			
TX.M.6.6	When legal, correctional, and/or administrative decisions affect patients treatment, organization has mechanism to coordinate those decisions with clinical decisions, including:			
TX.M.6.6.1	- use of seclusion and restraint for nonclinical purposes			
TX.M.6.6.2	- imposition of disciplinary restrictions			
TX.M.6.6.3	- length of stay			
TX.M.6.6.4	- restriction of rights			
TX.M.6.6.5	plan for discharge and continuing care			
PF.M.3.1	Documentation of academic education, when appropriate			
EC.M.4.1.3	Personal hygiene and grooming are taught, including			
EC.M.4.1.3	- bathing			
EC.M.4.1.3	- brushing teeth			
EC.M.4.1.3	- caring for hair and nails			
EC.M.4.1.3	- using toilet			

TALLY FOR CLOSED MEDICAL RECORD FORMS

- Instructions:
1. Add up (total) all of the closed medical record forms.
 2. Enter, in column A, the total number of forms with a Y entered for the item listed.
(see attached instructions for example)
 3. Enter, in column B, the total number of forms with a Y or N entered for the item listed.
(see attached instructions for example)
 4. Enter, in column C, the percentage of forms with a Y.
(i.e., Divide the number in column A by the number in column B).
(see attached instructions for example)

		A	B	C
Standard #	GENERAL ITEMS	# Y	# Y & N	A ÷ B = %
IM.7.9	All entries in the record are dated and,			
IM.7.9	authenticated			
IM.7.2.1	Patient demographics includes name			
IM.7.2.1	address			
IM.7.2.1	date of birth			
IM.7.2.1	legal representative, if applicable			
IM..7.2.2	Legal status (e.g., competency) documented for patients receiving Mental Health services			
RI.1.2.5	existence of advance directive is determined			
IM.7.2.10	Informed consent for treatment per policy (i.e., risks, benefits, alternatives)			
Standard #	DISCHARGE INFORMATION	# Y	# Y & N	A ÷ B = %
IM.7.3	Discharge summary or final progress note or transfer summary is present			
IM.7.2.21	Discharge information includes all medications prescribed or dispensed at discharge			
IM.7.3	reason patient was admitted			
IM.7.3	operative/invasive procedure reports			
IM.7.3	treatment rendered			

TALLY FOR CLOSED MEDICAL RECORD FORMS

		A	B	C
Standard #	DISCHARGE INFORMATION	# Y	# Y & N	A ÷ B = %
IM.7.3	discharge instructions			
IM.7.3	condition at discharge			
MS.6	Autopsy - met Medical Staff autopsy criteria			
Standard #	HISTORY & PHYSICAL	# Y	# Y & N	A ÷ B = %
PE.1.7.1	H & P completed within 24 hours of admission			
IM.7.2.6	Diagnosis/impression recorded on H & P			
IM.7.2.7	Reason admitted is documented			
IM.7.2.8	Treatment plans documented in H & P			
Standard #	ORDERS	# Y	# Y & N	A ÷ B = %
IM.7.9	All orders are dated			
IM.7.9	All orders are authenticated			
IM.7.8.1	Verbal orders authenticated within organization's required time frame			
IM.7.9	House staff orders are countersigned			
Standard #	EDUCATION	# Y	# Y & N	A ÷ B = %
PF.2.1	Assessment of learning needs			
PF.2.1	assessment of abilities			
PF.2.1	assessment of readiness to learn			
PF.2.1.1	Assessment of cultural practices			
PF.2.1.1	assessment of religious practices			
PF.2.1.1	assessment of limitations			
PF.2.2.1	Educ. about safe & effective use of medications			
PF.2.2.2	Educ. about safe & effective use of equipment			
PF.2.2.3	Educ. about drug-food interactions			
PF.2.2.3	Counseling on nutrition intervention and/or modified diets			
PF.2.2.4	Instructed about rehab techniques			
PF.2.2.5	Instructed about community resources			
PF.4.2	Educ. process was interdisciplinary			
PF.2.2.6	Educ. about when & how to obtain further care			

TALLY FOR CLOSED MEDICAL RECORD FORMS

		A	B	C
Standard #	EDUCATION	# Y	# Y & N	A ÷ B = %
PF.3	Educated on discharge instructions			
Standard #	ASSESSMENT OF PATIENTS	#Y	# Y & N	A ÷ B = %
TX.3.4.1	Monitoring of medications effect on the patient includes assessment based on collective observations			
TX.3.4.1	including the patient's own perception			
PE.1.1	Need for care/treatment is determined & documented			
PE.1.1	need for type of care is determined & documented			
PE.1.1	need for further assessment is determined & documented			
PE.1.1	Physical assessments are documented			
PE.1.1	social assessments are documented			
PE.1.1	psychologic assessments are documented			
	Scope/intensity of further assessment is determined by:			
PE.1.2.1	patient diagnosis			
PE.1.2.2	treatment setting			
PE.1.2.3	patient desire for treatment			
PE.1.2.4	patient response to previous treatment			
PE.1.3	Need for nutritional assessment is determined			
PE.1.4	Need for functional assessment is determined			
PE.1.6	Need for discharge planning is assessed			
TX.4.1	TPN requirement is based on assessment			
TX.4.2	Orders for TPN are based on assessment			
Standard #	REASSESSMENT	# Y	# Y & N	A ÷ B = %
IM.7.2.15	Is present in the medical record			
PE.2.1	Is completed at specific times in the course of treatment			
PE.2.2	Is done to determine the patient's response to treatment			
PE.2.3	Is done when there is significant change in the patient's condition			
PE.2.4	Is done when there is a significant change in the patient's diagnosis			
PE.3	Assessment data is integrated to identify & prioritize patient's needs for care/treatment			
PE.3.1	Care/treatment decisions are based on patient needs/priorities			

TALLY FOR CLOSED MEDICAL RECORD FORMS

		A	B	C
Standard #	OPERATIVE/INVASIVE PROCEDURES	# Y	# Y & N	A ÷ B = %
PE.1.8	Pre-op H&P and diagnosis is recorded			
IM.7.4.1	- by licensed independent practitioner			
PE.1.8.1	Pre-anesthesia assessment (e.g. risk, ASA) is documented			
TX.2.1	Pre-op plan for anesthesia is recorded			
PE.1.8.2	Patient determined to be appropriate anes. candidate			
PE.1.8.2.1	- by licensed independent practitioner			
TX.5.3.1	Nursing care plan recorded pre-op			
TX.5.3.2	A procedure/op plan is recorded pre-op			
PE.1.8.3	Prior to induction, patient is re-evaluated for anesthesia			
TX.2.3	Pt. physiological status measured & assessed during anesthesia			
TX.5.4	Post operative monitoring of patient includes:			
TX.5.4.1	- physiological status			
TX.5.4.1	- mental status			
TX.5.4.2	- pathological findings			
TX.5.4.3	- IV's			
TX.5.4.3	- Drugs			
TX.5.4.3	- Blood & components			
TX.5.4.4	- unusual events: post-op complications/mgmt			
TX.2.4.1	Patient discharge from the post-anesthesia recovery area by licensed independent practitioner or			
TX.2.4.1	Patient discharge from the post-anesthesia recovery area by meeting Med. Staff criteria			
IM.7.4.3.6	Name of licensed independent practitioner who discharge the patient from the anesthesia recovery area is recorded			
IM.7.4.3.4	Individual who provided nursing services in post-op anes. recovery area is identified			
Standard #	OPERATIVE NOTE	# Y	# Y & N	A ÷ B = %
IM.7.4.2	Op note is documented immediately post-op			
	Operative note content includes (as applicable):			
IM.7.4.2	- findings			

TALLY FOR CLOSED MEDICAL RECORD FORMS

		A	B	C
Standard #	OPERATIVE NOTE	# Y	# Y & N	A ÷ B = %
IM.7.4.2	- procedures			
IM.7.4.2	- specimen removed			
IM.7.4.2	- post-op dx			
IM.7.4.2	- name of surgeon/assistant			
IM.7.4.2.1	Op note is authenticated by the surgeon			
IM.7.4.2.2	A progress note about the operation is entered immediately when there is a transcription delay			
Standard #	SPECIAL POPULATIONS: PEDIATRIC RECORD INCLUDES	# Y	# Y & N	A ÷ B = %
PE.7.1	Developmental age			
PE.7.1	- length/height			
PE.7.1	- head circumference			
PE.7.1	- weight			
PE.7.2	Education needs			
PE.7.2	- daily activities			
PE.7.3	Immunization status			
PE.7.4	Family/guardian expectations for and involvement in the assessment			
PE.7.4	Family/guardian involvement expectations in tx			
PE.7.4	Family/guardian involvement expectations in continued care of patient			
Standard #	EMERGENCY CARE	# Y	# Y & N	A ÷ B = %
IM.7.2.3	Care prior to arrival			
IM.7.6.1.1	Time & means of arrival			
IM.7.6.1.3	Conclusions at discharge			
IM.7.6.1.3	- disposition			
IM.7.6.1.3	- condition			
IM.7.6.1.3	- instructions			
IM.7.6.2	Copy of ED record to followup provider			
IM.7.6.2	- patient authorizes release of ED record			

TALLY FOR CLOSED MEDICAL RECORD FORMS

		A	B	C
Standard #	EMERGENCY CARE	# Y	# Y & N	A ÷ B = %
	Transfer not arbitrary			
CC.6	- receiving hospital consent to transfer			
CC.7	- information goes with patient			
Standard #	CARE OF THE DYING PATIENT	# Y	# Y & N	A ÷ B = %
RI.1.2.8	Primary and Secondary symptoms treated			
RI.1.2.8	Pain management			
RI.1.2.8	Psychological concerns addressed			
RI.1.2.8	Spiritual concerns addressed			
RI.1.2.6	Orders for withholding resuscitative services			
RI.1.2.7	Orders for withdrawing life-sustaining treatment			
Standard #	AMBULATORY MR INCLUDES:	# Y	# Y & N	A ÷ B = %
IM.7.5	- DX			
IM.7.5	- Conditions			
IM.7.5	- Procedures			
IM.7.5	- Drug Allergies			
IM.7.5 IM.7.2.21	- medications dispensed/prescribed			
IM.7.5.1	- above list started by 3rd visit			
Standard #	RESTRAINT/SECLUSION	# Y	# Y & N	A ÷ B = %
TX.7.1	MD time-limited order			
TX.7.1	Pt. needs attended to			
Standard #	ALLEGED/SUSPECTED ABUSE/NEGLECT	# Y	# Y & N	A ÷ B = %
PE.6.1	Assessment conducted with consent			
PE.6.2	Safeguard evidence			
PE.6.2	- info released by patient			
PE.6.3	Legal notification, as required			

TALLY FOR CLOSED MEDICAL RECORD FORMS

		A	B	C
Standard #	MENTAL HEALTH	# Y	# Y & N	A ÷ B = %
RI.M.1.4.3.1	Therapeutic indications necessitating restrictions are evaluated for therapeutic effectiveness			
RI.M.1.4.3.1.1	Restrictions are explained			
RI.M.1.4.3.1.1	Restrictions are determined with participation of patient/family			
RI.M.1.4.3.2.3	Patient receives written statement of rights			
	Before requesting consent for participation all patients are supplied with:			
RI.M.2.1.1	- description of benefits to be expected			
RI.M.2.1.2	- description of potential discomforts and risks			
RI.M.2.1.3	- description of alternative services			
RI.M.2.1.4	- full explanation of procedures to be followed			
RI.M.2.1.5	- assurance of right to refuse to participate			
RI.M.2.2	All consent forms (RI.M.2.1 - RI.M.2.1.5) indicate:			
	- name of person who supplied prospective participant with information			
	- date form was signed			
	All consent forms (RI.M.2.1 - RI.M.2.5) address participants right to:			
RI.2.2	- privacy			
RI.2.2	- confidentiality			
RI.2.2	- safety			
RI.M.4	Determination of the need for protective services, if appropriate			
RI.M.5	Need for guardianship determined through independent assessment			
PE.M.1.5.1	Psychiatric evaluation for inpatients includes:			
PE.M.1.5.1.1	history of emotional problems/treatment			
PE.M.1.5.1.1	history of behavioral problems/treatment			
PE.M.1.5.1.2	history of substance abuse problems/treatment			
PE.M.1.5.1.2	Current emotional & behavioral functioning			
PE.M.1.5.1.3	Maladaptive or problem behaviors			
PE.M.1.5.1.4	Psychiatric evaluation			

TALLY FOR CLOSED MEDICAL RECORD FORMS

		A	B	C
Standard #	MENTAL HEALTH	# Y	# Y & N	A ÷ B = %
PE.M.1.5.1.5	Mental status exam appropriate to patients age			
PE.M.1.8	Legal assessment of patient completed and entered in record, when appropriate			
TX.M.1.5.1	Documented justification of clinical problems and needs not addressed			
TX.M.1.5.2	Patients/family's perceptions of his/her needs			
TX.M. 1.8.2	Daily activity services, when provided are incorporated into treatment plan			
TX.M.6.1.3	Rationale for using seclusion or restraint addresses inadequacy of less restrictive interventions			
TX.M.6.1.4	To justify procedure, individuals permitted by law and organization conducts clinical assessment of individual prior to authorizing use of seclusion or restraint.			
TX.M.6.1.5	Written order for restraint or seclusion time limited (does not exceed 24 hours)			
TX.M.6.1.6	In emergency, seclusion or restraint may be used for a period not to exceed one hour before an order of a LIP is required if seclusion or restraint is continued.			
TX.M.6.1.7	"PRN" orders not permitted.			
TX.6.1.9	Individual in seclusion or restraint has needs attended to every 15 minutes.			
TX.M.6.5.10	Time-out used in accordance with patients program and organization p & p.			
TX.M.6.5.11	Patient record documents failure of less restrictive alternatives when restraining devices aversive behavioral consequences are used.			
TX.M.6.5.12	Restraining devices or aversive behavioral consequences used in accordance with patients program and organization p & p.			
TX.M.6.6	When legal, correctional, and/or administrative decisions affect patients treatment, organization has mechanism to coordinate those decisions with clinical decisions, including:			
TX.M.6.6.1	- use of seclusion and restraint for nonclinical purposes			
TX.M.6.6.2	- imposition of disciplinary restrictions			
TX.M.6.6.3	- length of stay			
TX.M.6.6.4	- restriction of rights			
TX.M.6.6.5	plan for discharge and continuing care			

**TALLY FOR
CLOSED MEDICAL RECORD FORMS**

		A	B	C
Standard #	MENTAL HEALTH	# Y	# Y & N	A ÷ B = %
PF.M.3.1	Documentation of academic education, when appropriate			
EC.M.4.1.3	Personal hygiene and grooming are taught, including			
EC.M.4.1.3	- bathing			
EC.M.4.1.3	- brushing teeth			
EC.M.4.1.3	- caring for hair and nails			
EC.M.4.1.3	- using toilet			



Telemedicine Procedures and Policies



GlobalMed Telemedicine Solution

A Quick Reference Guide

GlobalMed™, AT&T's Telemedicine Solution, has been selected for your organization's telemedicine network. GlobalMed encompasses communication and integration services, the CLI's Radiance Video Conferencing System, and md/tv, inc.'s Housecall™ software. This quick reference guide presents the basic elements of how to use the GlobalMed system. For more details, please refer to the Housecall User's Manual.

Housecall, a software product of md/tv, inc., provides the ability to store a patient's medical and clinical data in an electronic patient folder. The patient's folder can be forwarded through a telephone connection to a specialist for consultation. Housecall's patient folder feature expands the possibilities of telemedicine, as well as continuing medical education.

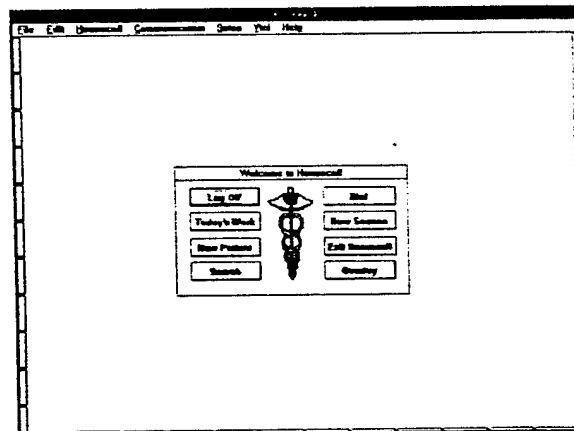
Using the "Welcome to Housecall" Screen

Housecall's Welcome screen provides command buttons for the most frequently used tasks. Touching or clicking buttons enables you to perform the following tasks:

Button

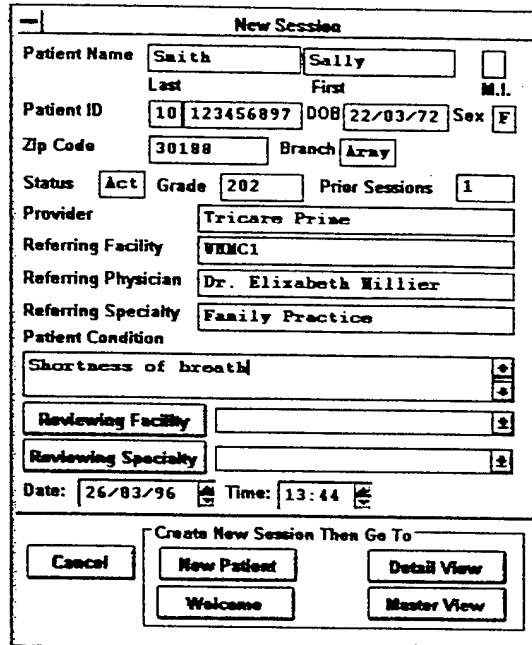
Function

LOG ON:	Begins a Housecall Session; requires you to enter user name and password.
LOG OFF:	Ends a Housecall Session.
TODAY'S WORK:	Transfers to the screen that displays your current patient folder work to review and prepare.
NEW PATIENT:	Displays the form to add a new patient.
SEARCH:	Displays the form to locate a patient folder in the system database.
DIAL/ HANGUP:	Connects/disconnects the Housecall systems. (A connection is required to send patient medical folders. The network dialing connection is completed with the CLI system.)
NEW SESSION:	Displays the form to add a new session folder for an existing patient. Requires you to already know the patient ID. If the ID is unknown, search by name. Then add a session while in the Master View screen.
OVERLAY:	Displays a screen that can be used instead of the CLI Touch Panel.



Adding Patients and Session Folders

Add a patient to the system by selecting the **New Patient** button on the Welcome screen. This creates a Master View patient folder (yellow folder) to hold all of the patient session folders (blue folders).



New Session

Patient Name: Smith Sally M.I.

Patient ID: 10 123456897 DOB: 22/03/72 Sex: F

Zip Code: 30188 Branch: Army

Status: Act Grade: 202 Prior Sessions: 1

Provider: Tricare Prime

Referring Facility: WEMC1

Referring Physician: Dr. Elizabeth Millier

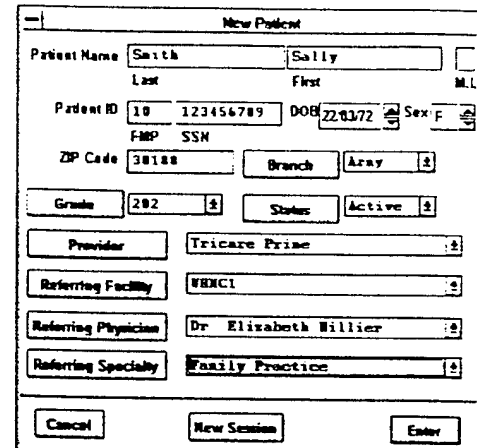
Referring Specialty: Family Practice

Patient Condition: Shortness of breath

Reviewing Facility: Reviewing Specialty:

Date: 26/03/96 Time: 13:44

Buttons: Cancel, New Patient, Detail View, Welcome, Master View



New Patient

Patient Name: Smith Sally M.I.

Patient ID: 10 123456897 DOB: 22/03/72 Sex: F

FMP: SSN: ZIP Code: 30188 Branch: Army

Grade: 202 Status: Active

Provider: Tricare Prime

Referring Facility: WEMC1

Referring Physician: Dr. Elizabeth Millier

Referring Specialty: Family Practice

Buttons: Cancel, New Session, Enter

Create a folder for a patient's telemedicine session by selecting the **New Session** button on the Welcome screen. The patient's session folder is created and used to capture medical images and present clinical information for each consultation.

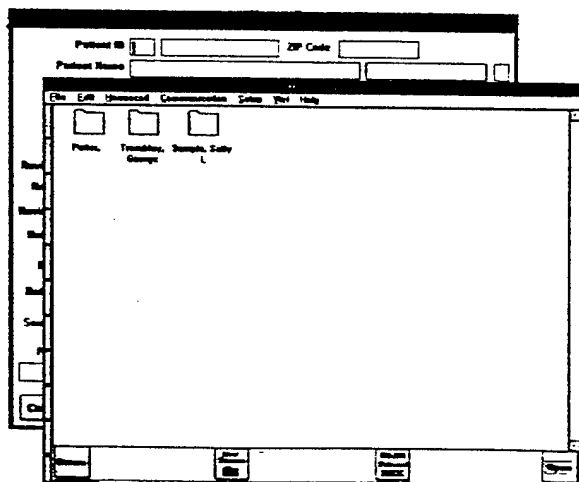
The patient master record and session folders can be set up by the medical support staff.

Finding Your Patient's Session Folders

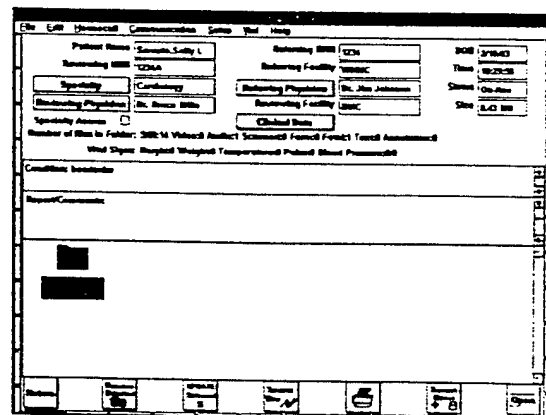
From the Welcome screen there are two ways to find a patient's folder:
use the **Search** feature or review **Today's Work**.

Search for a patient's record and all session folders. On the Search window enter one or more criteria. The system presents the master records (yellow folder) which meet the entered search criteria. Select the patient and touch **Open**.

Today's Work displays all newly created folders. It also displays folders recently received from another Housecall system. Select the patient's folder and touch **Open**.

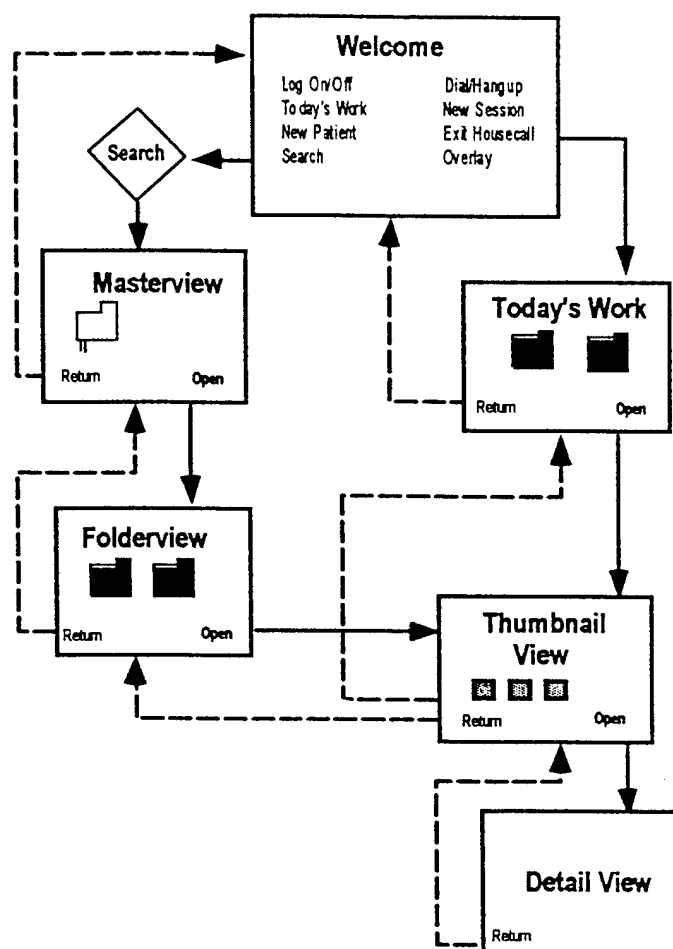


Search window showing Patient ID, Patient Name, and a list of folders (Patient, Troubles, Smith, Sally, Group).



Today's Work window showing Patient Name, Referring Facility, Referring Physician, and a list of folders (Patient, Troubles, Smith, Sally, Group).

Navigating Through Housecall



Adding/Reviewing Patient Medical Information

The following user tasks are completed on the indicated Housecall screens.

User Tasks	Screen
Add/Review Audio and/or Text Report	Thumbnail View
Add/Review Clinical Data for Master Record	Today's Work, Thumbnail View, Folder View
Add Vital Signs	Detail View
Access Template/Protocol Examination	Detail View
Capture Medical Images using the room camera, scopes, document camera	Detail View
Scan Medical Documents	Detail View
Review/Annotate Medical Images, Documents	Detail View
Record/Play Video with the VCR	Thumbnail View, Detail View
Capture/Play Motion Video Clip	Detail View

Video Sources

A variety of video sources can be integrated into the GlobalMed System. Video sources include a room camera, document camera, VCR, and/or medical scopes. The **local video source** displays on the CLI Preview Monitor (or "Picture in Picture - PIP," if the CLI has a single monitor). The local video, which is at your site, transmits to the remote site. The **remote video source** displays on the CLI Monitor when there is a network connection. When there is no network connection, the local video displays on both CLI monitors.

Local Video Source:

Local video displays on your CLI Preview monitor (PIP), transmits to the remote station, and can be displayed in a video window on any Housecall work screen.

You can change the local video source in several ways:

CLI Touch Panel

- ▶ Touch the **Video Source** button, then touch camera desired, and the **OK** button.



Housecall Bezel Buttons

- ▶ Touch the indicator bar of one of the **Source** buttons.



Housecall Radiance Overlay

- ▶ Pull down **Radiance** menu, select **Overlay**. The Overlay is a duplicate of the CLI Touch Panel.



Housecall's Video Window:

Housecall's video window is always open and displays only one video source at a time. The video may be either the local or the remote video source.

To Display a Video Window:

- ▶ Touch the indicator bar of one of the **Video** buttons.

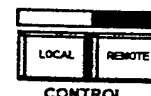


To Hide the Video Window:

- ▶ Touch the indicator bar of the **Hide** button.

To Select Local or Remote for Housecall's Video Window:

- ▶ Touch the indicator bar of the **Local Control** button to display the system's video source.
- ▶ Touch the indicator bar of the **Remote Control** button to display the video being transmitted from the location that is connected to your system.



Using the Robotic Control Camera

You can move/change the camera view of the robotic camera at your location (local) or at the connected location (remote) by one of the following methods:

In Housecall, on any screen

- ▶ Select either the **Local** or **Remote** control button.
- ▶ Touch the video display window on the Housecall monitor in the direction you want to move the camera.
- ▶ Touch/click the indicator bar of the button.

On the CLI Touch Panel

- ▶ Touch the directional arrows/zoom buttons displayed on the CLI Touch Panel.
- ▶ Select the **Remote** button, if you want to change the remote camera view. Another touch screen will be presented to control the remote camera.



Setting Camera Presets

Preset camera positions allow you to quickly change the robotic camera's view. You can set a **Preset** on any Housecall work screen for either your system or the remote system.



- ▶ Open the video window in Housecall.
- ▶ Check the **Control** button. Determine if you want to preset the video source for your local or for the remote robotic camera.
- ▶ Change or move the camera view, as desired.
- ▶ Touch the indicator bar of the **Set Preset** button.
- ▶ Assign the camera view by touching the indicator bar of one of the **Preset** buttons.

Capturing Images and Documents in Housecall

Medical documents and images are added to a patient's session folder by using one of the various cameras (room, doc, scopes) or a document scanner (an optional device).

You can take a still capture of an image from a remote video that is being transmitted from the remote site. When you take a **remote capture**, your Housecall system (the local system) instructs the remote system to capture the image at the remote location. When the capture is complete, the remote system initiates a file transfer of the captured image back to your system. When the transfer is complete, the image will be placed in the patient's open session folder.

IMPORTANT: For any type of capture or scan, you must be in the Detail View of the patient's folder.

To Capture a Medical Image:

- ▶ Open the video window in Housecall.
- ▶ Change the video source (room, doc, scopes) as needed.
- ▶ Adjust camera view, lighting as needed.
- ▶ Touch the **Capture Still** button's indicator bar.
- ▶ Review the captured image on the screen for acceptance.



To Take a Remote Capture:

- ▶ Display the remote site's camera view in your video window.
- ▶ Both systems should open the patient's session folder into the Detail View.
- ▶ Advise the other site that you are going to request a remote capture. Neither system can be used while a remote capture is being completed.
- ▶ Press the **Still Capture** button's indicator bar.

To Scan a Medical Document:

- ▶ Open the cover of the document scanner. Place the document face down on the scanner flatbed.
- ▶ Touch or click the **Capture Scan** button's indicator bar.
- ▶ Select **Prescan** from the scanner setup window. Adjust the image area, if needed. Ensure that the Scan DPI is set at 150x150.
- ▶ Select **SCAN**. The system presents the scanned image in the Detail View.
- ▶ Review the scanned image on the screen.



To Capture a Medical Document:

- ▶ Follow the steps to capture a medical image, select the document (DOC) camera as the Video Source on the CLI Touch Panel.

Working with a Captured Image

When images are captured and displayed in the Detail View, you can crop, rotate, enlarge, reduce, and annotate them with voice, text or graphical drawings.

The control buttons to manipulate and annotate an image are located on the bottom of the Detail View screen. **To use a tool**, touch the tool's command button, then either touch/click the image or touch/click and drag across the image, depending on the tool. Review the additional notes below.

To Manipulate an Image:



Touch the **Crop** tool button, then touch and drag diagonally across the image. A box forms around the area you want to save.



Touch the **Rotate** tool button, then touch the image, which rotates 90° with each touch. The system will ask if you want to save the rotated image.



Touch the **Magnify/Reduce** tool button, then touch the image. The system enlarges or reduces the image with each touch.



Available when the image is enlarged, the **Pan** tool allows you to move the image display area. Touch the **Pan** tool button, then touch and drag the image.

Hide All



Show All



Touch the **Hide All** button to hide the annotations. The toggle button changes to **Show All**. To redisplay the annotations, touch the **Show All** button.

To Annotate an Image:



Touch the **Voice** tool button and touch the image where you want the voice icon to appear. The audio tool appears. Touch **Record** to begin and **Stop** to end your voice recording.



Touch the **Text** tool button and touch the image where you want the text annotation to appear. The text window appears. Use the keyboard to type the annotation.



Touch the **Arrow** tool button, then touch the image and drag across it. An arrow head will appear at the point where you release your touch.



Touch the **Eclipse** tool button, then touch the image and drag diagonally across the area you want to encircle.



Touch the **Freehand Draw** tool button, then touch the image and drag to create a line.



Touch the annotation to be deleted until a box appears around the annotation. Touch the **Delete Selected XXX**.

Viewing Multiple Images in the Detail View

- ▶ Go to the Thumbnail View.
- ▶ Touch the **Select Multiple** control button.
- ▶ Touch each image icon that you want to view.
- ▶ Touch Open to take the images into the Detail View. You can "tile" up to 16 images.

To View One Image in Full Size:



- ▶ Touch the image to select it.
- ▶ Touch the **Max** toggle button to display the image in full size.
- ▶ Touch the **Tile** toggle button to return to the display of multiple images.

Placing Patient Records in Transmit Queue



Patient folders or individual medical records (images, reports, scanned documents) from the folder can be placed in the **Transmit Queue** and sent to another Housecall system when the systems are connected. The Transmit Queue is used when numerous folders and records are transmitted at the same time (in a batch).

To use the Transmit Queue:

- ▶ Select the folder or individual medical record icon.
- ▶ Touch the Transmit Queue command button

To review items placed in the Transmit Queue:

- ▶ Return to the **Welcome to Housecall** screen.
- ▶ Pull down the **Communication** menu and select **Transmit Queue**.
- ▶ Mark the folders and medical records for **Next Call** prior to dialing the Housecall system.

The next time the Housecall system connects, a message will appear asking the user to review the marked items. Review the marked items to ensure that they are correct and touch the **Transmit Now** button. All the marked items will be transmitted immediately.

IMPORTANT: You cannot use the Housecall system while the records are being transmitted.

Dialing another Housecall Station

Before patient medical records can be sent from one site to another, the two Housecall systems must be connected using the **Dial** command. The Dial command is available on any Housecall screen through the **Communication** pull down menu. The CLI system must first establish the telephone network connection between the two CLI systems. After you have established a video conference connection with the CLI system, you can use the **Dial** command to connect the Housecall Stations.

Automatic Connection:

If the reviewing facility has only one referring location, the CLI video conferencing systems connect as soon as both the CLI systems are "powered on."

To Dial using the CLI Touch Panel:

If the reviewing facility in your telemedicine network has more than one referring location, the following call sequence must be completed by either site after both CLI systems are "powered on."

- ▶ Touch the **Call** button.
- ▶ Touch the **Telemedicine** button.
- ▶ Touch the **Name of the Location**. The CLI system dials the location.

To confirm that the two Housecall systems are connected:

- ▶ Pull down the **Communication** menu and select **Connect Status**.
You are connected if there is an "x" in the boxes for ☐ NIWOT and ☐ CODEC.
- ▶ If either or both boxes do not have an "x", hangup Housecall at both sides and retry.
When the **Remote Control** button's indicator bar is yellow, it is available. Open a video window and select the **Remote** option. Try to move the remote camera by touching the video window in the direction you want to move the camera. If you can move the remote camera, you are fully connected.

Using Transmit Now



The **Transmit Now** control button is used when the two Housecall systems are already connected and either a patient folder or individual medical records need to be transmitted. Transmit Now is available on the Folder View, Thumbnail View, Detail View, and Today's Work screens.

Using Mute Audio



The **Mute Audio** button activates the **CLI Mic Off** function on the CLI Touch Panel. It allows you to control whether your voice/conversation will be transmitted to the other site.

Conducting an Interactive Session

The **Interactive Session** feature enables one of the connected Housecall stations to control cursor movements and the navigation and annotation control buttons in the Detail View.

IMPORTANT: To use the **Interactive Session** feature, both Housecall systems must have the same patient session folder open and display the same image in the Detail View.

To activate an Interactive Session:

- ▶ Pull down the **Communication** menu.
- ▶ Select **Interactive Session ON**.

To deactivate an Interactive Session:

The station that initiates the interactive session must close the session.

- ▶ Pull down the **Communication** menu.
- ▶ Select **Interactive Session OFF**.

My Notes



My User Name: _____

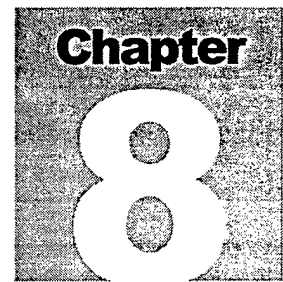
User Password: _____

Our Telemedicine Project Leader is: _____

Our System Administrator (key user) is: _____



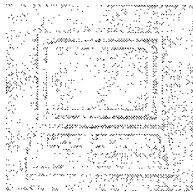
Other Forms of Electronic Medical Records



Evaluations of Health Information System Models

Contents:

- Information System Model Descriptions
- Evaluation of Models
- BJACH Model



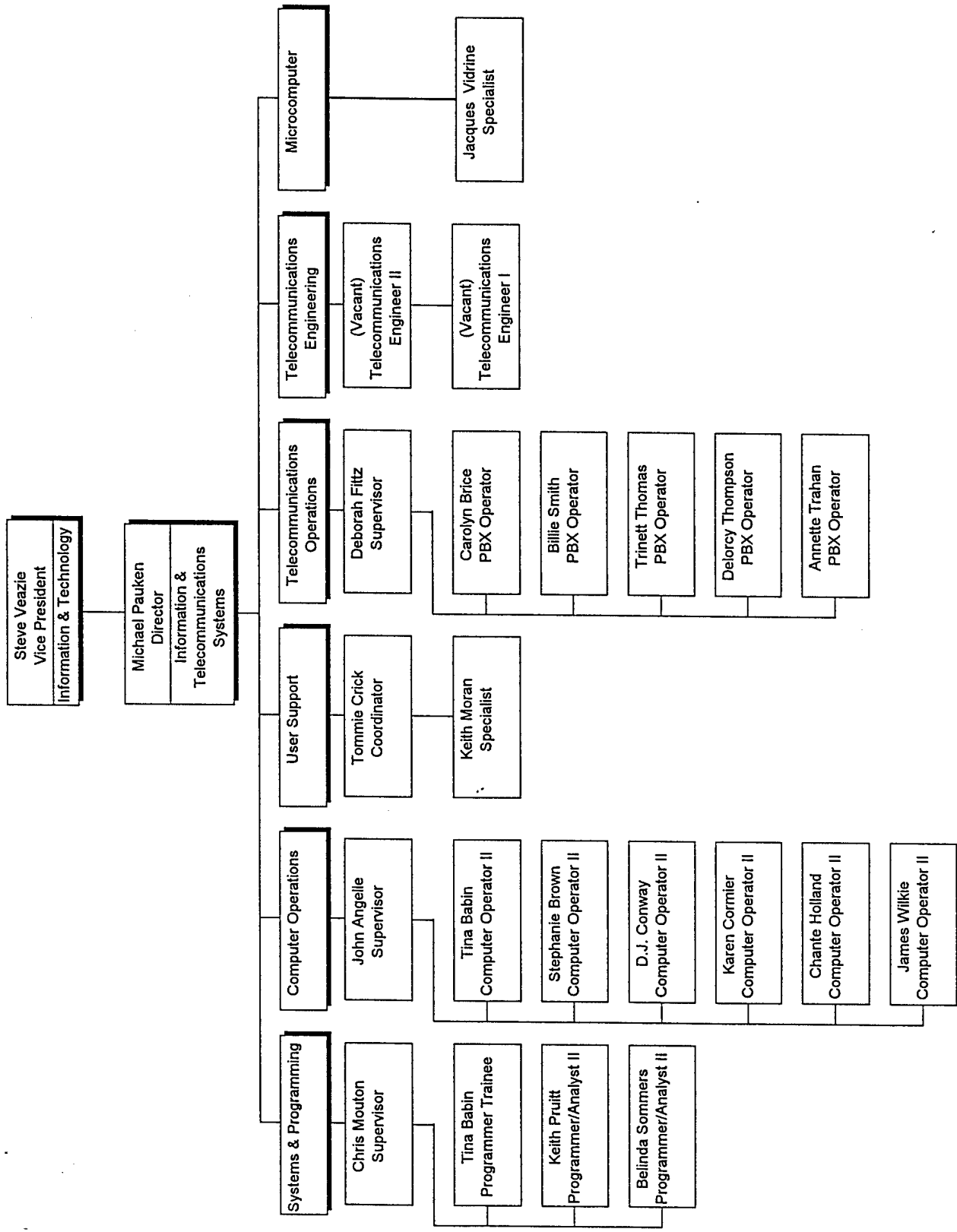
Information System Model Descriptions

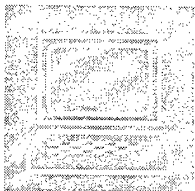


Evaluation of Models

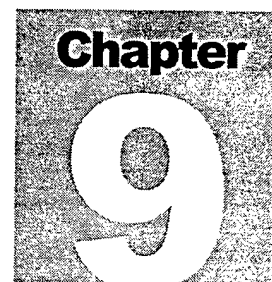
SAMPLE ORGANIZATION (LAKE CHARLES REMORIAL)

Information & Telecommunications Systems





BJACH Model



References

Contents:

- JCAHO Standards
- Glossary of Common Terms
- Software Cheat Sheets



JCAHO Standards

JCAHO IM Scoring Guidelines

IM.1 Information Management processes are based on comprehensive assessment of needs that considers, when appropriate, the elements listed in the Intent.

IM.1.1 Evidence indicates that internal and external information management processes are appropriate for the organization's size and complexity.

IM.1.1.1 Evidence indicates that the organization provides direction, staffing and material resource allocations based on its scope and complexity of services.

IM.2.3 Evidence indicates that records and information are protected against loss, destruction, tampering, and unauthorized access or use.

IM.3.1 Evidence indicates the organization uses standardized minimum data sets, data definitions, codes, classifications, and terminology.

IM.4 Evidence indicates that staff are educated and trained in Information Management according to their individual needs.

(Individuals in the organization who generate, collect, analyze, and use data and information are educated and trained to effectively participate in managing information. The education and training enable these individuals to:

- Understand security and confidentiality of data and information
- Use measurement instruments, statistical tools, and data analysis methods for transforming data into relevant information
- Collect unbiased data, gathered with a control for confounding or corrected on the basis of acceptable methodologies
- Assist in interpreting data

IM. 5 Evidence indicates that the transmission of data and information is timely and accurate, as defined by need and use.

IM. 5.1 The format and methods for disseminating data and information

HEALTH INFORMATION PLAN

meet users' needs and are standardized, whenever possible, to facilitate interpretation.

IM. 6 Evidence indicates that for both patient care and nonpatient care services the organization's information management function can:

- coordinate collection of information
- make organization from one system available to another
- organize data
- analyze data
- interpret and clarify data and information
- access and provide longitudinal data and information

IM. 6.1 The Organization follows its policy on medical record information retention:

- Length of time information is retained, determined by the following five factors:
 - law and regulation
 - its use for patient care
 - its use for legal purposes
 - its use for research
 - its use for education

HES Note: Retention guidelines should be set for all health information; many computer records are found in dusty closets!

IM. 6.2 Evidence indicates there are internal linkages of data and information processes within and between the patient care and the organizational functions described in the JCAHO Manual.

IM. 6.3 The organization has access to external databases and bodies of knowledge-based resources as required by its information management needs.

IM. 7.1 The organization maintains a medical record for all patients it treats in any setting. HES Note: A Medical Record in today's information systems may not look like the traditional records!

IM. 7.10 In 91% of the Medical Records reviewed, all the patient's relevant requested inpatient, ambulatory care and emergency care records were assembled manually or electronically when the patient received care.

IM. 7.10.1 The Medical Record or Computer System indicates when a

HEALTH INFORMATION PLAN

portion of the record is filed elsewhere and the portion of the medical record can be retrieved easily (simply) whenever the practitioner needs it.

IM. 8 Evidence indicates that the organization assesses its needs for aggregate data and information in managerial decisions and operations, performance improvement activities, and patient care.

IM. 8.1.2.2 The organization uses a system of collecting and processing aggregate safety information from surveys of all the facility areas to identify environmental hazards and unsafe practices for use by the safety committee and other appropriate individuals, as specified in "Management of Environment of Care".

HES Note: This is a good example for survey purposes of how you use data, develop information, and where appropriate take action to improve any potential hazards or unsafe practices.

IM 8.1.2.3 The organization uses a system for collecting and processing aggregate safety information from reports and investigations of all incidents involving property damage, occupational illness, or patient, personnel, or visitor injury for use by the safety committee and appropriate individuals.

IM 8.1.4 The organization uses a system to collect aggregate data and information from appropriate sources regarding records of any incident reporting to proper authorities for use in managerial decisions and operations, performance improvement processes, and patient care.

IM 8.1.5 The Organization uses a coding and retrieval system to collect aggregate data and information from appropriate sources for medical records by diagnosis and improvement processes, and patient care.

IM 8.1.6 The Organization uses a coding and retrieval system to collect aggregate patient demographic data and information from appropriate sources for use in managerial decisions and operations, performance improvement processes, and patient care.

IM 8.1.6.1 The Organization uses a system to collect aggregate information from a continuously maintained control register for Emergency Services that includes the following information for every individual seeking care:
Identification such as:

Name
Age
Sex
Date

HEALTH INFORMATION PLAN

Time
Means of Arrival
Nature of Complaint
Disposition
Time of Departure

IM 8.1.7 The organization uses a coding and retrieval system to collect aggregate financial data and information from appropriate sources for use in managerial decisions and operations, performance improvement processes and patient care.

IM 8.1.8 The organization uses a system of measure (that is, indicators) to collect aggregate data and information from appropriate sources about processes and outcome from assessing performance and for use in managerial decisions and operations, performance improvement processes, and patient care.

IM 8.1.9 The organization uses a system to collect data from appropriate sources summaries of actions taken as a result of organization wide performance improvement activities, including risk management, utilization review, infection control, and safety management. These Aggregate Data and Information are used in managerial decisions and operations, performance improvement processes, and patient care.

IM 8.1.10 The organization uses a system to collect aggregate licensed independent practitioner specific data and information from appropriate sources for use in managerial decisions and operations, performance improvement processes, and patient care.

IM 8.1.11 The organization uses a system to collect accurate, timely aggregate information from appropriate sources for both operational decision making and planning processes.

IM 8.1.12 The organization uses a system to collect aggregate data and information from appropriate sources to support clinical research.

IM 9.1 Evidence indicates that the organization has a plan for and provides clinical and managerial literature, reference information, and research data to meet its identified needs. (HES Note: In the Assessment Tool, we ask what periodicals, subscriptions, etc., each Department and Key Function Area receives or subscribes to.)

IM 9.3 Evidence indicates that there are systems and structures for organizing books, journals and other resources (for example, catalogs, on line databases); subject access to internal and external resources (for example, catalogs, indexes, and on-line or CD-ROM bibliographic databases); and delivering needed information resources not owned by the organization (for example, reciprocal sharing agreements, consortia membership). (HES Note: Library consultant reports and agreements for shared services qualify also.)

IM 9.4 Evidence indicates that knowledge based information resources are available to everyone who needs them. (Resources should provide authoritative and up to date scientific, clinical, and managerial knowledge.)

Examples: Selected List of Books and Journals for the small
Medical Library (referred to as the Brandon-Hill list)
Bulletin of the MLA
Library for Internists
American College of Physicians

(HES Note: Consider up to date resources including scanning databases and publishing information, following customer recommendations, and using reviews. Do you have any mechanism for communicating recommended information? For example, notifying your HMO contract team that a recent periodical reports that an HMO uses a specific database?)

IM 9.4.1 Evidence indicates that knowledge based information resources are authoritative and up to date.

IM 9.5 The organization has ready access to current poison control information for emergency reference. (HES Note: Is this an on-line data base? This is a good example of external data used to improve patient care and current clinical data.)

IM 9.6 Formulary or drug list information is current and available for those who use it.

IM 10.1 The organization uses external reference data bases for comparative purposes.

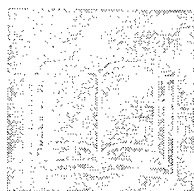
Examples: Reference Database
Multihospital System Database
Disease or Diagnosis-Specific Databases
Procedure-Specific Databases
Management Databases
Investigation Databases

HEALTH INFORMATION PLAN

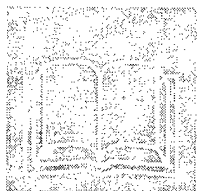
Proprietary Databases
Quality Improvement Databases
Purchase/Payer Databases
State Agency Databases

IM 10.2 The organization provides information to at least one external reference database from which it can obtain comparative data.

IM 10.3 The security and confidentiality of data and information are maintained when contributing to or using an external reference database.



Glossary of Common Terms



Software Cheat Sheets



A Division of Lotus

Quick Reference Card

cc:Mail for Windows, Version 2.0

cc:Mail, A Division of Lotus®
2141 Landings Drive
Mountain View, CA 94043
415-961-8800
Fax: 415-960-0840
Post Office Name: ccMail
Post Office Phone: 415-961-8884
Bulletin Board Phone: 415-691-0401 (8-N-1)

To prepare and send a message:



1. Click the Prepare icon or choose New Message from the Message menu.
2. TAB to the address text box.
3. Begin typing the name of the recipient until cc:Mail fills in the rest.

You can scroll through names in the Directory using the UP ARROW and DOWN ARROW keys.

4. When the name you want appears in the address text box, press ENTER to add it to the list of recipients.
5. To add more recipients, repeat steps 3 and 4 for each recipient.

You can also use the Address Message dialog box (click the Address button in the New Message window) or you can drag and drop recipients from the Address Book window (click the Address Book icon or choose New Address Book Window from the Window menu) and from other messages.



6. To send a carbon copy or blind carbon copy, choose CC or BCC from the address-mode drop-down list, then repeat steps 3 and 4 for each CC or BCC recipient.
7. TAB to the subject text box or click anywhere in that box.
8. Type a subject and press ENTER. The cursor moves to the item-view pane.
9. Type your message.

10. To attach a message item, choose Text or Files from the Attach menu. To attach a text file, type your text into the new message area that appears. Return to your original message by double-clicking the appropriate message-item icon (usually Text_1). To attach a file, choose the file you want to attach from the Attach/Files dialog box.



11. To save the message as a draft you can send later instead of sending it now, click the Save Draft icon or choose Save Draft from the Message menu.



12. To send the message, click the Send icon or choose Send from the Message menu.

To read and handle a message:



1. To open your Inbox, click the Inbox icon or choose Go to Inbox from the Window menu.

The Inbox icon is selected by default and the message pane lists the messages currently stored in your Inbox.

2. Open the message you want to read by double-clicking it or by selecting it and pressing ENTER.

The message is displayed in a Message window.



3. To print the message, click the Print icon or choose Print from the File menu.

4. When the Print Options dialog box appears, choose the options you want. You can print all or some of the message items. Choose **Text Options** to include partial or full header information on the hard copy. Choose **Setup** to change printers or orientation. Choose **Fonts** to change fonts.



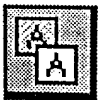
5. Choose **OK** or press **ENTER**.
6. To reply to the message, click the **Reply** icon or choose **Reply** from the **Message** menu. See the section on replying for more information.



7. To forward the message, click the **Forward** icon or choose **Forward** from the **Message** menu.



8. To store the message in a folder or archive, click the **Store** icon or choose **Store** from the **File** menu.



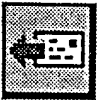
9. To copy the text of the message to the Clipboard, select all or part of it, and then click the **Copy** icon or choose **Copy** from the **Edit** menu.



10. To close the message and immediately delete it, click the **Delete** icon or choose **Delete Message** from the **Message** menu.



11. To read the next message listed in the Inbox, click the **Next Message** icon or choose **Next Message** from the **Message** menu.



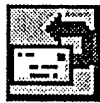
12. To read the previous message listed in the Inbox, click the **Previous Message** icon or choose **Previous Message** from the **Message** menu.



13. To delete the message and display the next one listed in the Inbox, click the **Delete/Next Message** icon or choose **Delete - Next Message** from the **Message** menu.

14. To close the message and return to the Mailbox window, double-click the Message window's Control-menu box or choose **Close** from the Control menu.

To reply to a message:



1. Open the message.
2. Click the **Reply** icon or choose **Reply** from the **Message** menu. You'll see the Reply dialog box.
3. To reply to the original sender only, select **Sender**.
or
To reply to all the original addressees, select **All Addressees**.
4. Leave the **Retain the Original Items** check box selected to retain the original message text and attachments (along with any changes you may have made) in your reply.
or
Deselect the **Retain the Original Items** check box to reply without including the original message items or any changes you may have made.
5. Choose **OK**.
6. Type your comments and modify the message items as appropriate.
7. If necessary, change the subject, priority, receipt setting, and/or log setting. You can also include additional recipients if you want.
8. Click the **Send** icon or choose **Send** from the **Message** menu.



To read a bulletin-board message:

1. Open the Mailbox window and open the Bulletin Boards container.
2. Open the bulletin board you want to view.
3. Read and handle the messages like any other message you receive.

To search for a message:



1. Click the **Search** icon or choose **Search** from the **Tools** menu.
2. Select Messages from the Find drop-down list. (You can also search for addresses.)
3. Use the two drop-down lists on the In line to indicate the container type to search (Inbox, Folder, Archive, and so on) and a specific container, if appropriate.

4. Specify the conditions for the search on the If line.
5. Choose Search to find the requested messages.
cc:Mail carries out the search, adding each message it finds to the list in the Search dialog box. If you change your mind, choose Cancel.
6. Handle the message(s) that you find like any other message you receive.

To forward a message:



1. Go to the Mailbox window and open the message you want to forward.
2. Click the Forward icon or choose Forward from the Message menu. You'll see the Forward dialog box.
3. To retain the subject, sender, date, and time of the original message in the forwarded message, choose OK or press ENTER.
or
To forward the message without a record of this information, deselect the Retain Forwarding History check box and then choose OK or press ENTER.
4. Address the forwarded message as you would a new message.
5. Type any comments and modify message items as appropriate.
6. If necessary, change the subject, priority, receipt setting, and/or log setting. You can also include additional recipients if you want.
7. Click the Send icon button, or choose Send from the Message menu.



To create a folder:



1. Open the Mailbox window.
2. Click the Add New icon or choose New from the File menu. You'll see the Add New dialog box.
3. Select Folder and choose OK or press ENTER.
You'll see a new untitled folder in the Folders container.

4. Type a name for the new folder (up to 30 characters) and press ENTER.
5. Repeat steps 2-4 for each additional folder that you want to create.

To store a message in a folder:



1. Select one or more messages from the Inbox, a folder, a bulletin board, or an archive.
2. To open the Store dialog box, click the Store icon or choose Store from the File menu.
3. Indicate in the Action box whether you want to copy or move the selected messages.
4. Scroll the Name list and select the desired folder, and then choose OK or press ENTER.
or
Type a new folder name in the Name text box and choose OK.
You'll see the Add New dialog box. In this case, choose OK or press ENTER to create the new folder and store the selected messages in it.

To display the contents of a folder:



1. Expand the Folders container by clicking the Expand icon or by double-clicking the Folders icon.
2. Double-click the folder that you want to see or select it and press ENTER.
3. The icon of the folder will appear open. When the folder is open, you can manage the messages in it. This procedure works for all container types.

To rename a folder:



1. Expand the Folders container to see the list of folder names.
2. Select the folder that you want to rename.
3. Click the Rename icon or choose Rename from the File menu.
4. The name of the folder is highlighted.
5. Type the new name and press ENTER or press ESC to cancel.

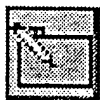
To delete a folder:

Caution When you delete a folder, you also delete all the messages in it.

1. Expand the Folders container to see the list of folder names.
2. Select the name of the folder that you want to delete.
3. Choose Ddelete from the Edit menu.



To use the Drafts folder:



1. While preparing a message, click the Save Draft icon or choose Save Draft from the Message menu. The message is saved in the Drafts folder.
2. Open the Drafts folder by double-clicking it or by selecting it and pressing ENTER.
You'll see a list of draft messages in the message pane.
3. Open the message that you want to complete by double-clicking it or by selecting it and pressing ENTER.
4. Complete the message and send it.

To create a private mailing list:



1. Open the Address Book window by clicking the Address Book icon or by choosing New Address Book Window from the Window menu.



2. Expand Private Mail Lists in the container pane.
3. Click the Add New icon or choose New from the File menu.
You'll see the Add New dialog box.
4. Select Private Mailing List if it is not already selected.
5. Choose OK or press ENTER.
You'll see a new untitled mailing list in the Private Mail Lists container.
6. Type a name for the mailing list and press ENTER.
7. Repeat steps 3-6 to create more private mailing lists.

To add names to and delete names from a private mailing list:

1. Open the Address Book window.
2. Expand Private Mail Lists.

3. Open the mailing list to which you want to add addresses.
4. Click the Add New icon or choose New from the File menu.
5. Select Mailing List Participants, then choose OK or press ENTER.
You'll see the Participants List dialog box.
6. Select one or more addresses for the mailing list, choosing Add after you select each address.
7. When you have finished, choose Done.
8. To delete an address, highlight it, then choose Ddelete or press DEL.

To drag and drop addresses into a private mailing list:

1. Open the Address Book window.
2. Expand Private Mail Lists.
3. Open the Directory, mailing list, or message that has the address(es) you want to add to your private mailing list.
4. Select the addresses you want to copy.
5. Scroll the container pane until you can see the name of the mailing list into which you want to copy the addresses.
6. Drag the selected addresses to that mailing list and release the mouse button to drop them into the list.

To display the addresses in a mailing list:

1. Open the Address Book window.
2. Expand the mailing list container (public or private).
3. Open the mailing list.
While the addresses in a mailing list are displayed in the address pane, you can use the drag-and-drop method to copy one or more of them to other mailing lists and to messages. You can also address a message to the members of a mailing list by dragging the icon of the mailing list itself to the recipients list of the message.

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Part No. 399541

To define a new rule:



1. Open the Rules List window by clicking the Rules icon or by choosing Rules List from the Rules menu.
2. Open the Rule Editor dialog box by choosing Create New Rule from the Rules menu.
3. Name your new rule or provide a brief description of it.
4. Describe when cc:Mail should run the rule, and automatically enable it if you want.
5. Define the conditions for executing the rule and the actions to perform when the rule is executed.
6. Save the rule.

To change a rule by editing its definition:

1. Open the Rules List window.
2. Double-click the rule that you want to change or select it and press ENTER.
3. Use the controls in the Rule Editor dialog box to edit the rule.
4. When you're finished, choose the Save button to save it to the same name.
or
Choose the Save as New button to save a new copy of the rule.

To enable a rule that is currently disabled:



1. Open the Rules List window.
2. Select the rule that you want to change.
3. Click the Enable Rule icon or choose Enable Rule from the Rules menu.

To disable a rule that is currently enabled:



1. Open the Rules List window.
2. Select the rule that you want to change.
3. Click the Disable Rule icon or choose Disable Rule from the Rules menu.

To manually run a rule:



From the Rules List window, click the Run Rule icon or choose Run Rule from the Rules menu.

Keys to Use in Dialog Boxes

Key Equivalent	To Move
Tab	Clockwise field to field
Tab	Clockwise pane to pane
Shift+Tab	Counter-clockwise field to field
Shift+Tab	Counter-clockwise pane to pane
Up/Down Arrow	Item to item within a field

Keys to Use in Windows

Key Equivalent	To Move
F6	Clockwise pane to pane
Shift+F6	Counter-clockwise pane to pane
Tab	Clockwise field to field
Shift+Tab	Counter-clockwise field to field
Up/Down Arrow	Item to item within a field

Keys for Editing

Key Equivalent	Resulting Action
Up Arrow	Moves up one line
Down Arrow	Moves down one line
Right Arrow	Moves right one character
Left Arrow	Moves left one character
Ctrl+Right Arrow	Moves right one word
Ctrl+Left Arrow	Moves left one word
Home	Moves to beginning of line
End	Moves to end of line
PgUp	Moves up one window
PgDn	Moves down one window
Ctrl+Home	Moves to beginning of document
Ctrl+End	Moves to end of document
Ctrl+Del	Deletes to the end of the line
Tab	Inserts spaces to tab stop

Keys for Selecting Text

Key Equivalent	Resulting Action
Shift+Left /Right	One character to left/right
Shift+Up/Down	One line of text up/down
Shift+PgUp	Up one window
Shift+PgDn	Down one window
Shift+Home	To beginning of line
Shift+End	To end of line
Ctrl+Shift+Left	Previous word
Ctrl+Shift+Right	Next word
Ctrl+Shift+Home	To beginning of document
Ctrl+Shift+End	To end of document

Key Equivalents

<i>Command</i>	<i>Menu</i>	<i>Key(s)</i>	<i>Command</i>	<i>Menu</i>	<i>Key(s)</i>
About cc:Mail	Help		New Mailbox Window	Window	
Address	Message	Ctrl+A	New Message	Message	Ctrl+M
Arrange Icons	Window		Next Message	Message	Alt ->
Cascade	Window	Shift+F5	Open	File	Enter
Clipboard	Attach		Paragraph Formatting	Text	
Close All	Window		Paste	Edit	Ctrl+V
Collapse	View	Shift Ctrl -	Previous Message	Message	Alt <-
Collapse All	View	Ctrl -	Print	File	Ctrl+P
Colors	Text	Ctrl+H	Print Setup	File	
Copy	Edit	Ctrl+C	Rename	File	
Create New Rule	Rules	Ctrl+N	Rename Item(s)	Message	
Cut	Edit	Ctrl+X	Reply	Message	Ctrl+Y
Delete	Edit	Del	Resend	Message	
Delete Message	Message	Alt+Del	Rules List	Rules	Ctrl+L
Delete - Next Message	Message	Ctrl Alt ->	Ruler	Text	
Delete - Previous Message	Message	Ctrl Alt <-	Run Apps	Attach	
Disable Rule	Rules		Run Item	Message	
Empty Trash	Tools		Run Rule	Rules	
Enable Rule	Rules		Run Rules as Scheduled	Rules	
Exit	File	Alt+F4	Save	File	
Expand	View	Shift Ctrl +	Save As	File	F2
Expand All	View	Ctrl +	Save Draft	Message	
Expanded Index	Help		Search	Tools	Ctrl+Q
Export	File		Send	Message	Ctrl+S
Files	Attach	Ctrl+F	SmartIcons	Tools	
Find Next	Edit	F3	SmartIcons	Help	
Find/Replace	Edit		Spell Check	Tools	Ctrl+E
Fonts	Text		Store	File	Ctrl+T
Forward	Message	Ctrl+R	Terminology	Help	
Go to Inbox	Window	Ctrl+I	Text	Attach	
How Do I?	Help		Tile Horizontal	Window	Shift+F4
Import	File		Tile Vertical	Window	
Index	Help	F1	Undo	Edit	Ctrl+Z
Key Equivalents	Help		Use Default Margins	Text	Ctrl+D
Margins/Tabs	Text		User Setup	Tools	
Move Rule Position	Rules		Using Help	Help	
New	File	Ctrl+N	View item	Message	
New Address Book Window	Window				

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